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NOTES OF AN ORNITHOLOGICAL TRIP IN ARIZONA AND SONORA.

BY F. STEPHENS.

IN March, 1884, Mr. C. G. Pringle, of Charlotte, Vt., made a journey by wagon from Tucson, Arizona, southwest to the Gulf of California, collecting botanical specimens; on this trip he was so successful as to wish to make another. Early in August he invited me to accompany him on a second journey over the same route, an invitation I very gladly accepted. The route lay over deserts most of the way, and as horse-feed and water had to be carried in some of the most interesting portions of the route, I took but a light 50-cal. gun instead of my 12-bore,— a mistake I afterwards regretted.

I did not intend making many skins, partly because I wished to add as little as possible to the material necessary to carry, and partly because the birds were now moulting and in poor condition. Therefore this must be a record more of what I saw than of what I got. As the country traversed is almost a *terra incognita* I will describe some of its principal features, to give a better understanding of its bird life.

Leaving Tucson August 7, 1884, we drove up the valley of the Santa Cruz a few miles and turned to the southwest over a gap in the low Sierra de Tucson, and emerged on a plain. Along the higher edge of the plain are many giant cactuses (*Cereus gigan-*

teus), mesquit, palo-fierro trees, and a general assortment of smaller cactuses. In this semi-forest growth were several characteristic desert species, such as *Colaptes chrysoides*, *Centurus uropygialis*, *Campylorhynchus brunneicapillus*, and *Amphispiza bilineata*. Further along this tree and cactus growth disappeared, leaving a plain only very sparsely covered with grass, where birds were nearly absent except some *Calamospiza bicolor*, then migrating. Nearly all these were males in the black and white breeding plumage; but they had nearly all changed to the winter plumage by our return some three weeks later. On a solitary little mesquit tree in the plain I saw a Hawk, and on approaching to see what the species was I observed a large nest in the same tree. Finding the Hawk not wild I killed it. It proved to be a young *Buteo swainsoni*, and was probably reared in the tree where it was killed. At our night camp I shot a *Callipepla squamata*. The next day we drove west of south over a narrowing part of the plain. In places there was a fair growth of grass, and again more or less brush, but almost no cactuses. In the morning we watered the horses at a well one hundred and eighty-six feet deep, paying ten cents per horse. A heavy rain appeared to be falling to the south, which we were glad to see, as it insured us water for our night camp. *Peucea cassini* was common and I heard one *P. arizonæ*.

On the morning of the 9th I heard *Callipepla squamata* ahead, and started on in advance of the wagon, but failed to get any. Shot three *Peucea arizonæ*, and saw several *Otocorys*. After walking three or four miles I waited for the wagon, which had not come on as soon as I expected. While waiting I heard a faint *bob-white* back along the road, and started back in a hurry. After looking and listening for a mile or so along the road I saw and shot a *Callipepla squamata*. Thinking I might have mistaken the *cu-en* of this species for the other call, I gave up further search and went to where Mr. Pringle and his assistant were collecting plants. We soon drove on, but before we had gone a quarter of a mile a Partridge ran behind a bush, and I knew that a bird new to me was before me. As I jumped out of the wagon it ran on to the next bush. I flushed it from behind the cover but missed the bird as it flew away. I marked it down among some bunches of sacaton grass, but failed to find it again. It was a much darker bird than I had expected to see, its head being very

dark, and it appeared almost brick red below as it flew away. I had been led to suppose that the unknown Partridge said to occur in this region was *Ortyx graysoni*, and from its description I expected to see a bird much the color of *O. virginiana*; but this bird was evidently something else. In the afternoon I heard another *bob-white*, and guided by the notes, I found the bird, perched on a branch of a small mesquit tree. Creeping up behind a small bush I succeeded in getting within twenty yards of it, but even this short range was too far for my little gun and No. 10 shot. I had a good view of this bird, and I certainly believe *this* one was *O. graysoni*. It had none of the reddish tint of the lower parts of the other bird, and had a plain whitish stripe on the side of the head. The notes, plainly heard, were two, *bob-white*; the *bob* was as loud as the *white*, but this last note lacked the ring of the last note of *O. virginiana*. I believe this to be the only *O. graysoni* I have ever seen, if it really was *graysoni*.

In the afternoon we watered the horses at the stage station, kept by a Mexican. The water had been hauled from a spring five miles away, and they charged us twenty-five cents per horse. Camped for the night in the best grass we saw on the route. The large spiders known in Arizona as tarantulas were abundant here, and my companions were not pleased with the prospect of such bed-fellows. I had camped out too long in the deserts to care for them.

I was awakened at daybreak by the call of *bob-white*, and was not long in turning out. How I wished for my 12-bore, for I knew that I had very little chance with my little gun and No. 10 shot in this open prairie. There appeared to be several of the birds scattered singly in various directions, but after two or three calls they became silent, perhaps because of the lateness of the season. When I heard a call I would go in the direction of the sound and wait to hear it again, generally without success. After a little another would strike up in another direction, and I spent the morning wandering about, but saw only one bird, which I missed. As it flew toward the rising sun it appeared bright red beneath. The notes that I heard with distinctness were different from those I heard the preceding afternoon. They were three instead of two, like *ah-bob-white*; similar to those of *O. virginiana*, but the *ah* louder in proportion, the emphasis increasing to the *white*, which had some ring.

This camp was near the divide between the Gila and Altar Rivers, and the country became more broken, barren mesas alternating with brushy arroyas. Grass became very scarce from this on. In the forenoon we passed the Mexican custom-house of Sasabe, where we obtained written permission to travel in Sonora one month. A few miles below Sasabe I saw a pair of *Ortyx*, the male with a dark head and reddish beneath, the female (?) dull brown, and I thought its head was subcrested. They were not very wild, and I wounded the male, but it got into a thick bush and could not be found. It probably crept into some squirrel hole, of which there were several under the bush. Shot a *Pyrrhuloxia sinuata*, and saw others. Also saw several *Lophortyx gambeli* and got a chick but a few days old. On the morning of the 11th, I got three *Callipepla squamata*. This is about their southwestern limit. A little further on I saw an *Ortyx* cross the road, and made out to kill it. This proved to be a male, the type of Mr. Wm. Brewster's *Colinus ridgwayi*.* It had a dark head and reddish breast and abdomen, and was the same bird that I had seen further back.

As our night camp was made in very good collecting ground we laid over all day on the 12th. There are several volcanic hills near, and plenty of small trees and cactuses. I obtained seven *Peucea carpalis*, including adults and young. Saw *Polioptila plumbea*, *Amphispiza bilineata*, *Centurus uropygialis*, *Colaptes chrysoides*, and many other birds.

On the 13th we drove down a narrow valley all day. It was moderately well timbered, and the cactuses, *Cereus schotti* and *C. thurberi*, began to appear. At our night camp *Progne subis* was abundant and noisy. Saw *Phainopepla nitens* during the day.

On the 14th I took a nest and set of eggs of *Pipilo fuscus mesoleucus*, killing the parent; also a *Harporhynchus curvirostris palmeri*, having a very large bill. Passed through Altar, a town of some 1200 or 1500 inhabitants, on the Altar River, here a small stream one can nearly jump across. It was the first stream we had seen since leaving Tucson. Here we took the river road to Caborca, some thirty miles distant, passing Pedroquito midway. Near Pedroquito I shot a *Scardafella inca*, and saw others. This Dove seems to prefer the small cultivated enclosures around

* See Auk, II, p. 199.

the houses, and lives more on the ground than *Chamæpelia passerina*, which is more abundant in the same region, but is commonest in brush. *S. inca* has a coarse note. I saw a little group on the ground, the males strutting around the females, carrying their tails nearly vertical, and cooing. As most of these Doves were near houses I refrained from shooting, for the people would have been alarmed by Americans firing so near them.

At a quartz mill near Caborca we found four Americans, and were glad to meet men we could converse with, our Spanish being too limited for satisfactory communication with the natives. They were even better pleased to see a party from the United States. This is a very fine collecting locality. At daybreak on the morning of the 16th, I heard the *cu-cu-cu-cu* of *Glaucidium phalaenoides*, and shot it in a Thurber's cactus. There were enormous numbers of Doves in the timber. Their cooing was so loud and continuous that one could scarcely distinguish any other bird-note. *Melopelia leucoptera* was the principal noise-maker. As the sun gained height the noise diminished. We felt the heat here more than further inland, although the thermometer averaged some 15° lower than at Tucson; yet the least exertion made us drip with perspiration. There did not seem to be a breath of air. The last water of the Altar is used up here in irrigating, and we had to depend on the wells again, and they proved very few. About the Poso Moroneno (*poso* is well) the new giant cactus, *Cereus pringlei*, is abundant. This species is a giant, averaging as tall as *C. giganteus*, say 30 feet for moderately tall ones; branches more numerous and both branches and trunk more massive. Among the thousands of these cactuses I saw were scarcely any Woodpecker holes; probably insect life is too scarce, for the Woodpeckers were seldom seen. Birds of all kinds were very rare. At the San Felix mine I shot an *Auriparus flaviceps* and two *Campylorhynchus brunneicapillus*.

After leaving the San Felix mine we saw no human being until our return to the Poso Moroneno. We filled our water barrels here as a precaution, and had reason to congratulate ourselves on having done so, as we found the water at the Gringo Well so foul that neither man nor horse would drink it. On the low sandy plain, ten to twenty miles back from the Gulf, I saw thirteen *Harporhynchus lecontei* and secured three. Another wounded one escaped me by crawling into a labyrinth of squirrel holes.

Their call-notes (no song heard) were similar to those of *H. lecontei* heard elsewhere, but an undefinable difference in their actions caused me to think they might be different, which feeling was increased by their darker colors. They were in the moult, some having nearly full fall plumage, which contrasts very strongly with the much lighter, faded summer dress. Others, better competent than I to give an opinion, think them not distinct from *H. lecontei*.

About noon on the 20th we reached Port Lobos, the proposed terminus of the Tucson and Port Lobos Railroad. It is a town, strictly, in name only, as there is not a habitation nor inhabitant. The last wagon track made on the road from the mine to the Gulf was made by Mr. Pringle's wagon in his former journey. Fortunately we found the water in the old well fit for use, but grass for the horses was absolutely wanting, and we were therefore forced to turn back the next morning. I spent most of the afternoon along the beach. At high tide the surf washes the base of the high cliffs of cemented gravel. Some four or five miles to the northwest was a low rocky point (Point Lobos). By the aid of a field glass I could see many sea birds there, apparently several species of Gulls and Cormorants. Quite a number of Gulls were flying about, but few came near and I did not attempt to shoot any. A decaying Tern washed ashore, of which I wrote down a brief description on the spot, tallies pretty well with *Sterna anæsthesia*. Saw several Ospreys and a large Hawk, but the latter was too far away to identify. Two Sparrows shot at the foot of the cliffs Mr. Wm. Brewster identifies as *Passerculus rostratus*.* I also took a ♀ juv. *Calypte costæ*, probably migrating. Saw several large long-necked seals. Large turtles were abundant outside the surf, and several turtle shells lay along high-water mark. I should think fish were abundant. The surf was small and frequent. The tides apparently rise and fall nearly fifteen feet. In the distance we could see the higher parts of Isla Angel de la Garda, and further to the right was a faint blue line of mountain peaks on the peninsula of Lower California.

What a grand field, although a very difficult one, this Gulf and its shores present for scientific exploration! It was with regret at our inability to stay longer that we turned back in the morning. Two or three miles back from the beach I saw a small covey of

*See Mr. Brewster's paper in 'The Auk' for April, 1885, pp. 196-200.

Lophortyx gambeli. The next day I took another *Harporhynchus lecontei* and saw three more. Rain fell steadily nearly all day, and as that made us independent of wells we struck across country to the Poso Moroneno. Traveling was very bad, and we even mired twice, and were delayed by swollen streams where were dry 'washes' as we came down. The scarcity of provisions was becoming a serious matter with us, as we had not counted on delays by excess of water, but we finally reached Caborca, dinnerless. While camped over night twenty miles below Caborca, waiting for the water to subside enough to allow our crossing, I heard at twilight what I supposed was a *Micrathene whitneyi*, but failed to get it. The next morning I heard it again and saw two small Owls in a bush before it was light enough to tell positively what species they were, but the one I shot was *Glaucidium phalenooides*; the other disappeared, so it is possible that the two species may have similar notes, as from their actions I think these two Owls were of the same species.

Nothing further worth noting was seen until we passed Sasabe. On reaching the good grass we gave the horses a day's rest, and I searched for 'Bob-whites,' but failed to find any, but shot a *Centronyx bairdi*, and the next day a second. Each was alone, not wild; no note was heard, and its flight was zigzag.

Reached Tucson September 1, having traveled nearly five hundred miles on the round trip. While my lot of skins was small, only about fifty, Mr. Pringle brought in a large quantity of plants, very many of which proved to be new, and we voted the journey a success.

A few days later Mr. Herbert Brown showed me two male *Colinus ridgwayi*, sent him a short time before from the neighborhood of the Baboquivori Mountains, within Arizona; so this species has positively been taken within the United States.

THE GULLS OF THE CALIFORNIAN COAST.

BY H. W. HENSHAW.

IN fall and winter the coast of California, and, indeed, the whole Pacific coast from Puget Sound to Cape St. Lucas, is fairly

swarming with Gulls, and it is surprising that so little has been made known respecting the species represented and their relative numbers.

A limited opportunity for collecting and making observations on the coast from Santa Barbara to San Diego during the months of November and December of 1884, yielded some notes which seem worthy of record.

Larus argentatus smithsonianus.—This Gull has hitherto been reported from the Pacific coast only from Alaska. It is an exceedingly abundant species from Santa Barbara to San Diego, frequenting the shore and bays in numbers second only to the *Larus occidentalis*. Indeed in some localities it doubtless outnumbers the latter species as a winter resident.

Larus occidentalis.—Very numerous. This is *par excellence* the Gull of the Californian coast, being abundant at all seasons.

Larus delawarensis and

Larus californicus.—Both species are fairly numerous.

Larus philadelphiae.—This species is not uncommon in San Diego Bay in December, and I saw it on the coast farther north in November. The bulk of the species, however, probably winters to the southward.

Larus canus and

Larus brachyrhynchus.—Under these two names I mention provisionally two species of small Gulls which appear to be quite identical with two species inhabiting Alaska in summer, farther south than which they have not been known hitherto to occur. Both appear to be not uncommon along the southern coast of California, though they are, perhaps, the least common of the several species mentioned.

Whether the *L. canus* (so-called) of Alaska is identical with the European species, or whether it is a distinct form (species or variety), is at present in doubt, and much more material is necessary to settle the question than is at present contained in the National Museum collection.

The exact status of the Alaskan *L. brachyrhynchus*, its relationship to the European species and to *L. canus*, is also doubtful, from a similar lack of specimens. Mr. Walter Bryant has kindly sent me for examination a specimen of *brachyrhynchus* in immature plumage, taken in San Francisco Bay in the late fall, where he reports it as being uncommon. It is noticeable that nearly all the specimens observed by myself, together with the few taken (with one exception), were young birds, the implication being that the adults for the most part winter further north, probably from San Francisco northward, and perhaps in Puget Sound.

Stercorarius parasiticus.—This species is common in Alaska, but the bird has not been known thus far from further south than British Columbia. It appears to be common in December from Santa Barbara north.

WINTER NOTES FROM NEW MEXICO.

BY CHARLES F. BATCHELDER.

(Concluded from p. 128.)

SCATTERED along the river for a mile or so below the hotels are a number of small cliffs or precipitous outcrops of sandstone thirty or forty feet high. Their faces, which come down close to the water, are broken by many clefts and narrow gullies, and large blocks split off from their sides lie here and there piled one upon another. These were a favorite resort of the Cañon Wren (*Catherpes mexicanus*). They were not a very abundant bird, but single birds were apt to be met with in such places as these, which seemed to suit their tastes so well. What they want is rocks piled in confusion, the more abruptly perpendicular the better, among whose clefts and interstices they can skip and dodge about to their heart's content. They evidently prefer a place that is close to a stream, but in one or two instances I met with one in some dry little ravine back among the hills where he seemed contented among some loose rocks or even about fallen trees and up-turned stumps. They are quick in their motions, restless and shy. Their flight, for they occasionally fly considerable distances, is swift and low. At this season of the year I had not the pleasure of hearing their beautiful song, so enthusiastically described by more fortunate observers. However, though the breeding song was not to be heard, they were far from silent. The commonest note is a peculiar, loud, harsh, penetrating cry, not unlike the ordinary cry of the Nighthawk, and can be heard at a long distance. Besides this note I one day heard one repeatedly utter a sharp *ped-body*, the first syllable being rather prolonged and having the principal accent. The quality of the notes was about the same as that of the ordinary call-note. In illustration of one peculiar habit I quote the following from my notebook under date of December 23: "This forenoon I heard a Cañon Wren under my window, and looking out I saw him hopping about on the gravel. He presently flew to the hotel's extensive wood-pile and moved about on it for some time, uttering his loud harsh cry almost incessantly. I watched him sitting on the edge of

a pile of corded firewood, and almost every time he uttered his note he would at the same instant jerk his body, not to mention his conspicuous tail, around to one side or the other, alternately to the left and right, revolving about a quarter of a circle each time. Finally he flew to a little bridge over a gully back of the house."

The only other Wren that occurred was the Rock Wren (*Salpinctes obsoletus*), of which I obtained two one cold morning (December 22) when the ground was covered with a light snow that had fallen the day before. They were at points some distance apart, each on the side of a steep, rocky hill, thus bearing out their name much better than they do in some parts of their habitat. To trespass somewhat beyond my bounds, at Riverside, California, where I found them abundant in January and February, 1883, they frequented open plains and bare hill-sides destitute of rocks, and nearly so of vegetation. Their favorite resorts there were places where the clayey soil, baked hard by the sun, had been cut out by the occasional heavy rainfalls into little gullies, perhaps ten feet deep and often less than that in width, whose perpendicular sides reproduced in miniature the form of the great cañons of some of our western rivers. In the sides of these gullies there were a great many holes, some made by the water, others by the ground squirrels or other rodents, and about these holes and around the projecting corners of the crooked, narrow gullies the birds were continually dodging back and forth, giving you a glimpse of them here, and then disappearing and turning up unexpectedly some distance off.

The same morning that I met with the Rock Wrens I shot the only Arctic Bluebird (*Sialia arctica*) that I saw during my stay. It was perched on the edge of a rudely made brush dam that held back the waters of the stream, forming a pond from which started one of the irrigating ditches, its exquisite coloring contrasting brilliantly with the new-fallen snow that covered the ground. Very likely the bird had been driven down from the mountains by the snowstorm.

There are several spots along the river that will remain fixed in my memory not merely on account of their natural beauty, but because they formed the background to scenes in which that most interesting bird, the Water Ouzel (*Cinclus mexicanus*)

played the prominent part. The Ouzels seem to show excellent taste in the choice of their surroundings. In following up the stream if you come to a place where it splashes down over the rocks in a low fall into a clear, broad pool from whose depths a few rocks here and there barely lift their heads above the surface, keep your eyes open, you may chance to see a Dipper; it is such a spot as this they fancy, and about the foot of the fall or on one of the wet rocks that rise out of the pool is where to look for him. The charm of the bird is doubtless heightened by its frequenting such picturesque places, but I fear that it is attracted to them chiefly by the abundant food that can be gleaned about the rocks at the foot of the falls, luckless insects carried down by the force of the current, or any other tidbits the stream may furnish. They are very tame, unsuspicious birds, and hardly seem to be aware when one is watching them. One morning following down the stream past a point where it is bordered by some low sandstone cliffs, I heard a loud note somewhat like the cry of a Kingfisher. Looking around I saw an Ouzel, and restraining my first impulse to shoot it, I seated myself on a rock some twenty yards away and watched its actions. There was a slight fall in the stream and below it a deep pool, across which a small log had lodged. On this log sat the Dipper. On each side the rapids above the pool were covered by several inches of loose spongy ice that had formed during the night and had not yet yielded to the sun's rays, and only the middle of the stream was free from it. On the pool there was some floating ice, the remains of a skim formed in the night, and even the log the bird was on was partly coated with it. The Ouzel stood with its legs a little bent, its body being nearly horizontal, facing across the log, and apparently watching the water for anything eatable that might come within reach. Meanwhile it repeatedly lowered and raised its body, apparently merely by bending its legs, keeping the position of the body the same all the time, *i. e.*, not tipping it forward or back. The dipping was done rapidly with an interval between each dip. I timed it by my watch, and found the motion was repeated about forty times a minute. Presently it turned around, jumped into the water, and swam quickly to the foot of the rapids, sitting on the water much like a Grebe. It poked about the rapids, walking on the stones, and when necessary swimming

from one to another, stopping now and then to duck its head in for some bit of food, and occasionally standing still on a stone. Once, at least, it stood for a few moments on a stone, the top of which was covered by the water. Whenever it stood still it kept up the dipping, but I did not detect the motion except when the bird was stationary. After poking about the rapids for a while it came out on the snowy ice and walked about on it. Then coming to the edge of the ice it dropped off into the water, and presently reappeared having swum down stream under the ice. Apparently there was room for it to do so without diving. All the while it paid not the slightest attention to me. Perhaps it was as well that it never knew the fate that was in store for it: it now occupies a place in my collection.

They were as a rule quite silent birds. Besides the Kingfisher-like cry the only note I heard from them was one day when passing the same spot, I heard a cry that sounded like a magnified song of a grasshopper or katydid. Turning, I found it came from one of two Ouzels that were chasing each other, flying swiftly along the stream at about a foot from the surface. Their flight reminds me of that of the Black Guillemot.

The Ouzels were much more numerous than writers on the subject had led me to expect. Along some ten miles of the Gallinas River there must have been as many as twenty individuals during my stay. Very likely there were more of them than in summer, for though they are not a strictly migratory species, many of the mountain streams where they make their homes must freeze in winter, and so compel them to seek a temporary habitation among the streams in the foot-hills, that are either too large or too far south to freeze up entirely.

Down the river below the mouth of the cañon, where the gravelly banks of the stream are thickly covered with a growth of low willows and other bushes, Song Sparrows (*Melospiza fasciata montana*) were to be found. With the exception of two or three on the stretches of level ground bordering the river above the springs, I found none elsewhere. As compared with the Eastern Song Sparrow I noticed no difference in habits. Their chirp, the only note I heard them utter, was indistinguishable from that of *M. fasciata*.

Here, too, I occasionally came across a little flock of Tree Sparrows (*Spizella monticola ochracea*), though they did not con-

fine themselves to such places. One day I found one fraternizing with a flock of Juncos in a bare weedy field, and another was found in a clump of scrub oaks high up on the hills. In their habits they seemed to differ in no way from their Eastern relatives.

In the willows along the river bank the Cañon Towhees (*Pipilo fuscus mesoleucus*) were sometimes to be seen, though they frequented other places as well. Among their resorts were the small cliffs scattered along the river, where they poked about among the masses of fallen rocks at their bases, and in the clefts and gullies by which they were intersected. They were apt to be found, too, about the Mexican villages, where they might be seen perched on the high adobe wall surrounding a courtyard, or exploring the ruins of some deserted house that offered a safe retreat in case of alarm. Perhaps, however, the places where they were most numerous were some small irrigated fields on the outskirts of one of these little villages. Where these fields bordered the river or an irrigating ditch, they were fringed with bushes, chiefly willows, that were a favorite haunt of the Towhees. Here one would sometimes be seen running along and then stopping, somewhat like a Robin on an earthworm hunt. Their run really consists, however, of a series of rapid hops. There is much that is Thrush-like about their air and motions, and if seen from behind one might almost be mistaken for a Robin, its form and attitudes are so similar, though it does not stand as upright as a Robin very often does. As a rule they kept on the ground, but now and then they would get up in a bush or even in a low tree, but as soon as a Towhee saw he was attracting attention he immediately shifted his position or retired silently with a swift low flight to some safer place.

Though they commonly go in small flocks I am inclined to think that some at least remain paired throughout the year. They are not infrequently found in couples; in one such case dissection proved them to be male and female; in another when I had shot one bird the survivor showed evident signs of distress.

Their ordinary note is a *chuck* a good deal like a magnified copy of the Song Sparrow's *chuck*.

Among these bushes along the river were flocks of Juncos, too, though, indeed, it would be hard to say where they were not. Here in the bushes, in the bare weedy fields, among the pines on

the hills, as well as among their favorite clumps of scrub oak in the level openings in the cañon, they were sure to be found, wherever a plentiful supply of seeds could be picked up, for they were very industrious in appeasing appetites that seemed never quite satisfied.

On the edge of an irrigating ditch one day (December 18) I came upon a Ruby-crowned Kinglet, the only one I met with. It was feeding near the ground, among the willow bushes that bordered the ditch.

Another straggler, shot down the river, was brought to me December 23. It was the Great Northern Shrike. With the exception of a specimen obtained by Dr. Coues at Fort Whipple, Arizona, in February, 1865, this is, I believe, the most southern instance of its occurrence in the West that has been yet recorded.

My friends who shot this Shrike brought me at the same time some Red-winged Blackbirds (*Agelaius phoeniceus*) that they had shot from a flock down the river. Eight days before several others were brought to me, shot from a large flock near the same place. Ten birds out of eleven shot on these two occasions were apparently females, which suggests the probability that the flocks wintering in this neighborhood are made up chiefly of that sex.

A bird that I saw but once (December 20), was the Kingfisher (*Ceryle alcyon*). His habits were perhaps somewhat modified by the extreme dryness of the country, for though he was not far off from the river, yet while I saw him he stayed high up on a steep hillside where he generally chose a pine for a perch, though once or twice he alighted on a dead tree.

The only water bird that occurred was the Green-winged Teal (*Querquedula carolinensis*). They were quite plenty, and adapted themselves easily to circumstances in this scantily-watered country. Their favorite resort was an irrigating ditch that followed the course of the river some distance below where it emerges from the cañon. This ditch was not more than six feet wide, but the water was clear, and it had a swift current. The banks were thickly lined with slender low willows that overhung the water, offering an excellent shelter that the Teal seemed to highly appreciate. They were also sometimes to be found along the river, on some of its stiller stretches that were thickly fringed with bushes. Here they led a life of comparative safety, for any one approaching through the dense growth of willows could usually be heard before he caught a glimpse of them, and rising at

the first suspicious sound, a low flight kept them screened by the friendly bushes until well out of gunshot. On the ditch they were usually scattered along singly or in twos, but on the river half a dozen or more might sometimes be found together. I probably saw not more than ten or a dozen different individuals on any one occasion along the mile or two of the river where I observed them.

Among the more open spots along this part of the river, small flocks of Pine Finches sometimes paused in their wandering, though they spent most of their time, when not moving about, in places where large stretches of tall dead weeds furnished abundance of seeds wherewith to stuff themselves. One day, leaving the river and walking out on the bare desolate plains, apparently so devoid of life, I came upon a flock that must have numbered two hundred, so busily feeding among some weeds that they did not stir until I was close to them. Then they rose and flew back and forth, circling around several times before they flew away. As the flock turned in the air the whir of their many wings was plainly audible.

The plains, though they seem so deserted, are not without life. They have one characteristic inhabitant, the Horned Lark (*Eremophila alpestris chrysolæma*), that may be met with scattered here and there in small numbers in whatever direction you go. Their colors harmonize well with the dull tints of the surrounding ground, and as one crouches low at your approach you are very likely to overlook him. They remind one of the fact that nature, the great economist, allows no available space to be wasted and adapts all to their surroundings. The Larks certainly seem well contented with their home, bleak and barren though it may be, and are, perhaps, especially fortunate in occupying a place their title to which no other bird is inclined to dispute.

COUNTER-NOTES ON SOME SPECIES OF BIRDS ATTRIBUTED TO POINT BARROW, ALASKA.

BY E. W. NELSON.

IN 'The Auk' for April, 1885 (p. 200-201), Mr. John Murdoch makes some rather hasty criticisms upon certain statements made

by me in my notes upon the 'Birds of Bering Sea and the Arctic Ocean.* Mr. Murdoch's strictures apply wholly to certain species which I claimed to occur at, or in the vicinity of, Point Barrow, and his tone would seem to imply that his residence for two years a few miles south of the Point proper has given him a complete knowledge of the birds of that vicinity, so that former or later observers must revise their lists to conform with his or else risk having their statements summarily discredited. I think any experienced field ornithologist will admit that Mr. Murdoch's implied claim of having exhausted the possible avi-fauna of a locality in two years' residence is the best work on record. I supposed myself to be a tolerably thorough worker in the field, but I yield the palm here. During over four years' residence on the Alaskan Coast south of Mr. Murdoch's location, I found that each succeeding season brought me a number of additions to my list of species observed and taken, and four years' longer residence would no doubt have continued to add to my list. Should I adopt Mr. Murdoch's plan of discrediting everything not taken by myself with twice two years' residence at a locality, I should reject *Cyanecula suecica* from the birds of St. Michaels, and although two specimens of *Ægialites mongolicus* were taken on Choris Peninsula by the English ship 'Plover,' yet, as on my visit of several days to that locality I found none, I should reject it. Such a method, however, is scarcely a scientific one, and the following notes in reply to Mr. Murdoch's criticism will show, I believe, that in every instance the notes upon the species as printed in my works under consideration should stand as they are published.

Ægiothus linaria.—On August 17, 1881, we landed from the 'Corwin' at the extreme end of Point Barrow, and during our visit saw flying about among the native huts, or perching on the numerous wooden frameworks scattered about, quite a number of Redpolls, and among the adults were seen both the light and dark-colored forms with which I had become so familiar on the coast further south. The birds were very tame, and at the time I was perfectly satisfied of the identity of the two forms, and see no cause for altering my opinion because Mr. Murdoch did not take them afterwards.

Passerculus sandwichensis alaudinus.—Stated by me to occur "all along the coast of Bering Sea and at least to Point Hope and probably to Point Barrow." This bird certainly occurs at Point Hope where it was seen by

* Cruise of the Revenue Steamer 'Corwin' in Alaska and the N. W. Arctic Ocean in 1881. Washington, 1883.

me on several occasions, and as Point Barrow is a little further north on the same coast with a suitable country intervening, my statement that this bird 'probably' occurs north to Point Barrow is not an unreasonable one; when we consider the wandering disposition of the present form. But since Mr. Murdoch's positive statement that the bird "does not occur there," *Passerculus* may think better of it and hereafter avoid the tabooed ground.

Asio accipitrinus.—Some fragments of a skin of this bird were seen by me among the natives less than one hundred miles south of Point Barrow on the coast, and the wandering habits of the species, and its abundance on all the open coast-country to the southward of the point where the fragments mentioned above were seen, gives sufficient support to my statement that the species occurs "nearly if not quite to Point Barrow."

Ægialites semipalmatus.—When we first landed at Point Barrow a pair of these birds were found feeding in a sandy pool a few steps from where our boat was beached.

Ereunetes pusillus.—From the fact that I found this bird nesting wherever I made observations in Northern Alaska during the breeding season, and as I found it numerous at Point Barrow on our visit there, I naturally took for granted that it bred upon the adjacent suitable ground a short distance back from the shore. Mr. Murdoch's observations appear to show that it did not breed close to the Point the two seasons he remained there.

Numenius hudsonicus.—Skins of this bird were brought to me by natives from the headwaters of a river rising perhaps one hundred miles inland from Point Barrow, and the fact that these birds pass Kotzebue Sound in spring bound north, were the grounds upon which I based my statement that it occurs north to the "vicinity of Point Barrow."

Dafila acuta.—Among a lot of Ducks brought on board the 'Corwin' by the natives during our stay at Point Barrow, were several adults of this species with their primaries all moulted. These came from fresh water lagoons just back from the shore. As these birds, like most others of their kind, pass their summer moult upon their breeding ground directly after the breeding season, the capture of these specimens in the midst of the moult is pretty conclusive proof that these birds do breed in the near vicinity of Point Barrow, although Mr. Murdoch may not have found them during his two seasons there.

Nettion carolinensis.—My statement that this species occurs "nearly if not quite to Point Barrow" holds true, as a small flock of them were seen by me about one hundred miles south of the Point in a lagoon bordering the shore, and a little further south they were found quite numerous in the summer of 1881.

Mergus serrator.—During a dense fog that caused us to anchor a few miles off Point Barrow on the day of our arrival at that point, a flock of some half dozen individuals of this species flew close by the stern of the ship, heading for the shore, and others were seen at various not remote points along the coast.

ON THE BREEDING HABITS OF SOME ARIZONA BIRDS.

BY W. E. D. SCOTT.

THIRD PAPER. *Phainopepla nitens*.

A FEW words as to the distribution of the species (*Phainopepla nitens*) under consideration, as I have found it occurring in Pinal and Pima Counties, Arizona, and something regarding its movements in a migratory sense, will occupy part of the present paper, which should, perhaps, more properly have to do only with data regarding the breeding season.

At Riverside, in Pinal County, during the spring of 1882, I found this species to be rather uncommon, and doubtless it will be found breeding at that point, though I failed to detect it; and during my stay of two months at Riverside I saw only three or four of the birds.

Later in May I had occasion to go into the mountains to the north of Riverside, at a considerably higher altitude than that place, and here, in what is known as the Mineral Creek District, in the Pinal Mountains, I found the species an abundant one. My stay was so short and my time was so fully occupied with other matters, that I had no leisure to do more than make the above observation.

Coming back to this same region, Mineral Creek, in late July, and remaining for about five weeks, I found that the young birds were full grown, and that the great numbers of birds I had seen in May were now only represented by a very few moulting birds, mainly young ones. Again, leaving Mineral Creek about the last of August, I returned to that point about the 10th of October and remained until December 15. Soon I found that in certain localities,—sheltered flats in broad cañons, where there is a heavy growth of a kind of juniper, then laden with fruit,—the birds were very abundant, often gathering in flocks of fifty or more, and reminding one of the common Cedar Bird (*Ampelis cedrorum*). The individuals making up these parties were mainly young birds of the year, all having *fully completed the moult*, the young males being in a curious parti-colored plumage,

sometimes almost black mixed with only a few gray feathers, and presenting every phase between this dress and an almost gray or leaden colored one, with only a few black feathers intermixed. The iris in most of these young birds was dark brown.

They feed mainly on the berries of the juniper, but often one or more might be seen passing with peculiar flight through the air, turning on its own track, descending abruptly, as abruptly rising, and all the time with very measured wing-beats, evidently in pursuit of small insects.

All the time they, both adults and young birds, male and female, were calling to each other in a peculiar, bell-like, whistling note that was very musical. This I have since found is at all times the principal song.

I observed these birds at this point well into December, and think it probable they remained as long as the food supply was abundant.

During the season of 1883 I had little or no leisure to look after birds, and so I was unable to renew my acquaintance with this species until the last part of May, 1884. I was then living at the point treated of in the former two articles of this series, a cañon* in Las Sierras de Santa Catalina, on the northern side of the mountains, and running northward and a little easterly to the valley of the Rio San Pedro.

Here in May the birds were abundant, and wherever the mesquite extended into and mixed with the live-oak belt, they followed the first mentioned kind of wood, and later in the season I frequently met single ones well away from the mesquite in the oak region. Even at this time of year (May) they show a strong preference for all kinds of small fruits, especially wild mulberries, though insects enter as no small item into their diet.

My observations of the present year lead me to believe that the birds begin to breed early in, that is by the 5th, of May, at this point, which is about a mile down the cañon from my house, and at an altitude of about 3500 feet; though the first nest I found last year (1884), and which contained perfectly fresh eggs, was on the 17th of June.

* This cañon rises high in the mountains, as before described, and runs for twelve miles to the valley above mentioned. In the first article of this series (*vide* 'Auk' for January, 1885, p. 2, line 11), an error in printing speaks of the cañon as *two* miles in length.

That there is a wide difference in the time of the breeding of different pairs in the same locality cannot be doubted, but my experience leads me to believe that here, at least, only one brood is raised during the season.

All through July and August, and for the greater part of September, the birds remained abundant, feeding on the various berries and small fruits which became ripe as the season progressed, and wherever such fruit as they liked was at all abundant they paid little attention to any other kind of food, though insect life fairly teemed in and about the berries that attracted the birds. They showed a particular fondness for a kind of wild grape, and hunted the country through for such fruit, in parties of from ten to forty. In August and early September the young and old birds were moulting, and by the end of the latter month they began to disappear from the higher altitudes, retiring gradually as the weather became cooler.

At any time during the past winter, that of 1884-85, until about the middle of March, by going down the cañon to the vicinity of the river I could find a few individuals. But after the last of October I did not find them in flocks, but generally singly, or at most two or three in the same locality; and their food after the middle of November seems to be, in this region, almost entirely insects, which is contrary to the above recorded observations at Mineral Creek.

After the middle of March of the present year, though I was constantly collecting near the river in this and adjacent cañons, and on the mesas and hills at the lower altitudes, I lost sight of the species entirely. And on my frequent journeys to Tucson, about thirty-five or forty miles south, I rarely noticed the birds until well to the south of the mountains, and then only sparingly. My first notice of their return to the point near my house is April 20 of the present year, when they immediately became common, and were in some cases, at least, mated.

A female taken April 28, 1885, had an egg-yolk fully developed, and two others almost ready to enter the oviduct, and though I had not as yet noticed the birds building, this one must have begun to build, or possibly had already finished a nest.

The following data regarding nests and eggs collected during the breeding season of 1884, are from six nests before me and from notes made during that period.

Nest No. 1. June 17, 1884. Built in an oak, twenty-five feet from the ground. Contained three fresh eggs. It was saddled on a thick limb near where it forked, and about ten feet from the main stem of the tree. It is composed mainly of the stems of a soft flowering weed abundant hereabout, and the flowers, which are worked into and form a part of the structure. Also some strips of fine bark, and various dried grasses, small twigs, and much plant down, help to make up the walls and bottom. These are thick and very soft, and the materials composing them are not woven at all, but simply laid together with some little attempt at fastening them with thread-like grasses. Externally the nest is two inches deep, and the external diameter is a little less than four inches. The greatest depth inside is one inch, and the diameter of the interior at the rim of the nest is two and three-fourths inches. It is not at all an elegant structure, though peculiar, and is very fragile, being quite as delicate and soft as that of *Trochilus alexandri*.

The eggs, three in number, are greenish white in ground color, but so completely flecked all over with faint lilac spots as to seem at a very short distance of that general shade. Again, all over the lilac spotting, are very strongly defined spots of deep umber brown, almost black. These spots vary much in size, from that of a pin-point to as large as five one-hundredths of an inch in diameter. They are almost as various in shape as in size, and are dotted all over the egg in a rather regular manner. No. 1 measures .90 x .63 inches; No. 2, .84 x .64 inches, and the other is about like No. 2, but is unfortunately broken.

Nest No. 2. June 17, 1884. Mesquite, twenty feet from ground. Contained two young just hatched and an addled egg. Is a very similar structure in general appearance to the last, but the walls are much more compact, and the materials composing the whole are packed much more firmly together, being evidently secured together and plastered with saliva, especially on the rim of the nest and inside. The nest is saddled on a large limb, at least two inches in diameter, and is additionally supported by a twig that is about a third of an inch thick, and which, branching from the limb referred to at a point near the nest, passes through the wall on one side of the nest and is firmly built into the structure. The external diameter of the nest is four inches, and the external depth rather less than two inches. The internal diameter is two and

one-half, and depth one and one-quarter inches. The single egg remaining is entirely similar to those described, as far as color goes, and measures $.91 \times .64$ inches.

Nest No. 3. June 17, 1884. Mesquite, ten feet from ground. Contained *three* young, just hatched. Saddled very securely on a limb four inches in diameter; it is very like Nest No. 2, only that it is rather smaller and deeper. The materials are the same, and the gluing with saliva is very apparent.

Nest No. 4. June 21, 1884. Oak, ten feet from ground. Contained *three* eggs, partly incubated. These differ from those already described in having the ground color greenish white, unspotted for the half toward the smaller end, and in lacking almost totally the faint lilac spotting, and further in having the dark umber markings almost confined to a circular band passing wreath-like around the larger end. They measure $.88 \times .70$, $.90 \times .70$, and $.88 \times .68$ inches, respectively. The nest does not differ materially from those already spoken of, but is placed in a fork so that two branches support it, while it rests partially on a third limb.

Nest No. 5. June 21, 1884. Mesquite, ten feet from ground. Contains two eggs about to hatch. Is identical in material and position with No. 4, being placed in a fork of the limbs which support it. The eggs are not to be distinguished from those of nest No. 1.

Nest No. 6. June 29, 1884. Sycamore, forty feet from ground. Contained two young, half-grown. Is a loosely made structure, like No. 1, and is built on and attached to *four* rather small limbs where they branch.

This is not the only nest of this species which I have observed at a considerable height from the ground, at least three more being noted last year, but as they are built invariably, so far as I know, in such cases near the extremity of the branch, they are often unattainable.

The number of eggs would seem to be quite as frequently *three* as *two*; and it will be noticed that considerable latitude in choice is manifested as to the kind of tree built in, the height from the ground, and the position and method of placing the structure on the limb or in the forks of a branch.

HYBRID QUAIL (*LOPHORTYX GAMBELI*
× *L. CALIFORNICUS*).

BY H. W. HENSHAW.

As instances of undoubted hybridization among birds are comparatively rare, the following case, or rather two cases, of hybridization between the Californian Valley Quail (*Lophortyx californicus*) and the Gambel's Quail (*Lophortyx gambeli*) deserve record.

While bearing a superficial resemblance to each other, these two Quails seem to be specifically quite distinct. The former is pretty closely confined to the West Coast, *i. e.*, from the western slope of the Sierras to the ocean. In the mountains it attains a vertical range of 7000 or 8000 feet. The general area occupied is well wooded and has a considerable rain-fall, though it is probable that in the peninsula, where it appears to be abundant, it becomes more or less of a desert bird. The Gambel's Quail is confined to the southern portions of the Interior Basin, where it inhabits only comparatively low altitudes. Though perhaps hardly to be termed a desert Quail, the area it occupies receives on the whole a much less copious rain-fall, and is consequently much more arid than that inhabited by its congener. As the two species occupy regions differing considerably in physical conditions, it was with much interest that I learned during the past season that there is a locality in San Bernardino County, California, along the line of the Southern Pacific Railroad, where they come together. At this point occur hybrids.

While examining Mr. Stephens's fine collection of Arizona birds, he called my attention to a 'hybrid Quail' which he received from Mr. Herron, of Colton, which he very kindly placed at my disposal. Subsequently Mr. Herron, with equal courtesy, gave me a second hybrid, which may have come from the same brood, or which at any rate was shot in the same locality, *viz.*, the vicinity of San Geronio Pass. The following descriptions will show the chief characteristics of these hybrids.

No. 1 most nearly resembles the California Quail. The brown of the head inclines to chestnut, the latter being the color of the head in *gambeli*. The anterior white band on the forehead is mixed with black. The feathers on the sides and back of the neck, which in *californicus* have two

minute roundish white spots near the end, giving a mottled appearance to these parts, are in this specimen unmarked with white except on the sides of the neck anteriorly, where the spots appear, though less marked than in the corresponding part of *californicus*; these parts, therefore, are nearly as in *gambeli*. The wine-colored abdominal spot of *californicus* is present, but the feathers of the abdomen, instead of being tipped with a broad band of black, giving the scale-like appearance of *californicus*, are only narrowly so margined in the lower portion; while above, especially in the buff-colored area (which is as deep in this specimen as in *californicus*), the black margins are reduced to an extremely narrow fringe of black. This specimen has the sides and flanks chestnut, as in *gambeli*, but the chestnut is not so deep. The edging of the tertiaries is pale, as in *gambeli*.

No. 2 more nearly resembles *gambeli*. The crown patch is chestnut, though hardly so light as in typical *gambeli*. The bristly feathers of the forehead are much darker than in *californicus*, and nearly as in *gambeli*. The feathers of the sides and back of neck show traces of white, but, as in the other specimen, much more closely resemble *gambeli*. In the abdominal spot the wine color of *californicus* is but faintly visible, being overlaid, so to speak, with black, thus being nearer *gambeli*. The spot on the upper portion of the abdomen is yellowish-buff, but paler even than in *gambeli*, the corresponding area in which bird it resembles in size and shape. The broad black edgings to the feathers of the abdomen and breast of *californicus* are in this specimen, as in the other, mainly confined to the lower portions, leaving the upper parts nearly immaculate. In this specimen the chestnut on the side and flanks is like that in *gambeli*. The edges of the tertiaries are very pale, as in *gambeli*.

The intermediate character of the specimens thus cannot be doubted, and is visible at a glance. But, it may be asked, What certainty is there that these specimens are veritable hybrids between birds specifically distinct, and not the ordinary 'intermediates' which are usually conceded to be proof of specific identity, not diversity? To such a query answer may be made that where a species inhabits two regions so diverse in climatic and other conditions as to produce at either extreme a variety or race, the intermediate links showing that the two forms grade together must come from areas intermediate, if not in actual geographical position, at least in respect to climate, etc. In the present case no such intermediate area exists. The California Valley Quail is abundant down to the very edge of the desert, within sight and hearing, so to speak, of the home of the Gambel's Quail. Specimens shot by myself within a few miles from the desert differ in no respect from specimens from the interior valleys of California, and certainly show no indication of an approach to the characters of *gambeli*. Specimens of the Gambel's Quail, on the

other hand, from just within the desert—the exact locality where the hybrids were found—might have come from Utah or Arizona so far as comparison shows to the contrary. They are in every respect typical of the species and reveal no tendency to an approach towards *californicus* as a result of their proximity to the habitat of that bird. The specimens in question can, therefore, be nothing else than pure hybrids.

To what extent hybridization between the two species occurs at this point is at present not known, but Mr. Herron promises to pay attention to the matter and ascertain, if possible, the relative proportion the hybrids bear to the unmixed birds. It will be found, probably, that the hybrids are comparatively rare, as of a considerable number of Gambel's Quails already shot at the same locality, Mr. Herron recalls nothing peculiar. Probably it will be found that actual mating between the two species does not take place, but that the hybrids are the result of unusual meetings between the opposite sexes of the two species, which are more in the nature of accidents than anything else.

A STUDY OF THE SINGING OF OUR BIRDS.

BY EUGENE P. BICKNELL.

[Concluded from p. 154.]

Agelæus phœniceus. RED-SHOULDERED BLACKBIRD.

IN mild winters squads of Red-winged Blackbirds sometimes wander northward ahead of time. These find the swamps unprepared for them, and keep silence save for the dull *chuck* which it is customary for Blackbirds to use on all occasions. But song always accompanies the general migratory movement however early it may be entered upon, and I have known their spring concert to begin as early as February 22. No matter how backward the season, they will not brook more than a reasonable delay, and after the middle of March will come and settle and start singing even when the swamps are still ice-bound and they themselves are the only sign of spring.

March and April, and less truly May, are here their chief song-months. Later they resign the gallantry of courtship and, perhaps viewing the practical situation to which it has brought them, lose their readiness of voice, many, in fact, being reduced to complete silence. This state of things begins to be noticeable after the middle of May, and gradually becomes more apparent, although singing never wholly fails before July. By the middle of that month, even though the birds continue abundant, usually but few remain in voice. Dates of final songs bear record between July 17 and 28, and August 3.

After this time the movements of the species are rather perplexing. About the end of July almost all the adult males disappear, while the females and young remain abundant — even appear to increase in numbers — and multitudes often congregate at late afternoon in the mowed meadows. In September these have departed and the species is usually uncommon; indeed, in some years it appears to be altogether absent in this month. In October it becomes common again and singing is transiently renewed. But so fleeting is the period of autumn song that it may readily escape notice, and doubtless for this reason it is chronicled on my records only for two seasons. In 1878 it lasted from October 14 to 17, when song from a number of birds was full and perfect; in 1880 several songs of varying perfection were heard on October 17, but on no other day.

***Sturnella magna.* MEADOW LARK.**

Though the Meadow Lark gives us many months of its music, its song finds chief place in memory among the bird voices of earliest spring. Then flocks assemble in tall trees overlooking their favorite meadows, where the medley of their mingled songs is an agreeable change from the winter silence of the sere grass lands.

Often they are preceded in song only by the Bluebird and the Song Sparrow. I have known them to be singing by February 8 (1880); but they do not often anticipate early March, and when it happens that they are not present at the breaking up of winter of course their song is not to be heard until they put in an appearance, which may not be till early April.

I have no record of their singing later in the summer than the third week of August, and often they cease earlier.

In the autumn, however, they have their voices again. In 1880, flocks in full song were noted from October 10 to November 7, and all my data of other years is comprehended by these dates.

***Icterus spurius.* ORCHARD ORIOLE.**

We are never long left unaware of the advent among us of this active bird, for its rapid rollicking song bears a signal part in the repletion of bird voices which fill the morning hours in the early days of May. True to its tropical traditions it fairly revels in the hottest weather, and it may be heard singing with unabated hilarity all through those excessively hot days that often come suddenly upon us at the end of May or early in June.

The immature male, in the yellowish, black-throated plumage, sings as enthusiastically as his more richly attired compeers, and is often noisy with the earliest arrivals.

Singing begins to decline in July, and my record usually closes shortly after the middle of the month, sometimes barely reaching that point. But, again, songs may be scattered sparingly along till August, and I have one record of imperfect song-notes from an adult male on August 11. My record of latest songs is as follows: 1874, July 28; 1876, July 30; 1878, July 11, 17, 19, and imperfect song-notes August 11; 1880, July 11 and 18; 1881, before the 17th; 1882, July 25; 1883, July 18. Records of the singing of immatures plumaged birds run to July 10.

***Icterus galbula.* BALTIMORE ORIOLE.**

It would almost seem as if the Baltimore Oriole timed its advent by the blossoming of the fruit trees. At all events, the blossoms and the Orioles usually come together. And when the cherry and apples trees wear their full spring array the bright birds are in high spirits, gaily flashing from one tree to another, and sounding forth their golden-toned trumpets from the fragrant clouds of white bloom, amid which they spend many an hour while the blossoms remain. And when it may, much of its time is also

passed with a splendid foreign cousin of these trees, the Japan quince,—that brilliant flowering shrub that flames about lawns and gardens in early May, and that finds a rival brightness when the Fire-bird busies itself among its scarlet blossoms.

On their arrival these Orioles are particularly vivacious and noisy, and though their spirits appear soon to subside they continue in full note. But through most of July they are feeble-voiced and often silent. There is, however, no strict silent-period, for in some summers they are less quiet than in others, and even when most reticent they seem unable to restrain occasional imperfect song-notes. But the lapse of song in mid-summer undoubtedly points to an illy-defined silent-period, for full song is resumed in August. In the latter month, chiefly in its third quarter, their notes are frequent in the early morning and become as full-toned as in spring, at times seeming to be more extended, even as the bird's plumage is brighter. Still, at this season a few simple notes is a more usual expression than the full song. The latter I hear last in August, from the 5th to 27th. The simpler notes have always closed my record of the presence of the bird—August 19 to September 6.

Mr. William Brewster gives me the following notes on the Baltimore Oriole as observed at Cambridge, Mass. :—

“Through late July and early August they are silent and retiring, but with the first cool mornings, generally about August 20, the male begins singing again and flashes in and out among the leaves with all the vivacity of June. His plumage now is even brighter than in spring. At this season he sings only in the early morning.”

***Scolecophagus ferrugineus.* RUSTY BLACKBIRD.**

Sings in the spring during its stay, which is longer than that of any other migratory bird—sometimes from early March till mid-May—and in the autumn from its arrival in September until the great body of the species has passed south. Latest songs are in October, from the 20th to 30th. “Imperfect song-notes November 5,” is down in my record.

In the mild winter of 1879-80, these Blackbirds were observed at different times, and their song-notes heard January 18 and February 29.

THE CROW BLACKBIRDS.

The Grackles are unaccountably erratic in their visitation to my neighborhood, and my notes on their vocalization are meagre and unsatisfactory.

It may be said, however, speaking of the Crow Blackbirds broadly, without distinction between the Purple and the Bronzed varieties, that they are to be numbered with the birds which have their voice in the autumn. I have heard their squeaky song-notes in October, as late as the 23d.

Corvus frugivorus. CROW.**Cyanocitta cristata.** BLUE JAY.

With these birds there appears to be little relation between the use of the voice and the seasons.

The Blue Jay seems disposed towards quiet in the breeding season, particularly in the vicinity of its nest, and is most noisy during its migrations in autumn.

The cawing of Crows belongs to all seasons.*

Tyrannus carolinensis. KINGBIRD.

From the time of its arrival on through the season of family cares this bird's notes are louder and more frequent than later in its stay. But the Kingbird does not easily hold its peace under annoyance, and its harsh twitter constantly breaks forth in those dissensions which are ever rising between the irritable birds when they are flocking in the late summer preliminary to departure.

But at this season their notes are usually much abbreviated, for their voices are declining; and when the great body of the little combatants have fought their last fight and departed, which is about the end of August, it is the exception if the loiterers that continue to be met with are not mute.

* I regularly hear the strange croak of the Fish Crow (*Corvus maritimus*) from early spring until summer. The boundary dates of my record are February 22 and August 15; but I do not often hear the bird after May. Whether it is absent through the late summer, autumn, and winter, or is present but silent during this time, lies beyond my observation.

Myiarchus crinitus. GREAT-CRESTED FLYCATCHER.

In July the voice of this bird begins to fail, and a silent-period is nearly approached, if, indeed, it be not actually reached, in trying summers.

During this time of semi-silence the usual utterance is a single note, which is often faint, and with a mournful intonation as it sounds at slow intervals among the high trees of the woods.

Towards the end of August there is noticeable on the part of the birds an attempt to regain their earlier vocal prowess, but they soon return to the low note which they learned in July. This is their farewell, and is in strange contrast to the harsh outcry with which they came upon the scene.

Sayornis phœbe. * PHŒBE-BIRD.

The well-known Phœbe comes to us in the spring the first of the Flycatchers; the first, in fact, of our strictly summer birds—those that never show themselves in winter—and for this reason, as well as because it actually comes to us and need not be sought, it always meets with a special welcome among the evidences of the advancing season in March. According to custom, on the first morning of its arrival its song comes in through the windows from gable-peak or other familiar perch about the grounds, and not till then does spring seem really to have begun. But its song is one of those which appeals to the sympathies rather than to the ear, fully making up in sincerity what it lacks of music. Still, it must be reluctantly admitted that later, when more graceful and gifted songsters are with us, the plain Phœbe does appear a trifle unsophisticated, and its notes may grow monotonous. Nevertheless their jerky character seems to be held in high opinion by their author, and is admirably seconded by its tail.

Usually the Phœbe-bird must be waited for until after the middle of March; but it may put in an appearance any time between the first and last days of the month—March 5 to 30.

* Cf. Stejneger, Auk, Vol. II, No. I, p. 51.

As to its singing in the summer, there is much variability in different years. In some, little will be heard from it through the greater part of July, August, and September; and in prolonged heated terms it may be generally silent for weeks at a time in any part of this period. If the weather be agreeable it is much less taciturn.

With considerable regularity singing is resumed in the latter part of September, and usually lasts into the following month.

On bright autumn days, especially, the Phæbes seem animated by the same cheerful spirit in which they passed the spring, and in their ardor of song even dare again the high pitch of note where the voice seems about to crack at every ascent. Such songs are often among the last.

My record tells of farewell songs from September 28 to October 17. These really announce the general departure of the species—the latest with us, as it was the earliest of the Flycatchers—and though single birds seem to be loath to leave and often linger late about the thinning orchards and leafless shrubbery along the borders of ponds and streams, their only note is a simple *chip*.

Contopus virens. WOOD PEWEE.

When it first comes the Wood Pewee seems to be a little shy of using its voice. Perhaps, with its solitary disposition, it is not at ease amid the confusion and medley of the migrations. At all events it puts off its coming till much of this is over with; and in the summer it is most voiceful in the early morning and in the evening when it can have the woods all to itself. Often it may be heard repeating its plaintive, inquiring call when the woods are quite dark, either before the sun has risen or after it has set.

In late July or early August its voice shows evidences of decline, and gradually the species goes out of song. In some seasons singing may continue with tolerable constancy through most of August, but it is never general in September, although occasional songs are to be heard up to the time of the bird's departure. The latest songs are often stronger than those of several weeks previous. Dates of last songs for ten years are from August 28 and September 2 to September 19 and 24.

When singing is at its weakest, the song may be reduced to a single low note, suggestive of a low note of the Yellow-bellied Flycatcher.

Empidonax flaviventris. YELLOW-BELLIED FLYCATCHER.

I have heard the song-notes of this spring and fall migrant in the last days of May, and once in mid-August (August 14, 1880); but on the fall migration it is usually silent.

Empidonax acadicus. SMALL GREEN-CRESTED FLYCATCHER.

Continues in full note through June and into July. With me its notes cease in the latter month, between the 5th and 20th, but where the species is more abundant doubtless it may be heard later.

Since this went to the printer I learn from Dr. A. K. Fisher that at Sing Sing, N. Y., where the bird is common, its notes continue nearly to the end of August, and probably even later.

Empidonax trailli. TRAILL'S FLYCATCHER.

I hear this species only while it is passing north on its migration, when it sometimes tarries into June.

Empidonax minimus. LEAST FLYCATCHER.

Silence comes earlier to this species than to almost any other of our summer birds; but where I have found this to be true is near the southern limit of the bird's summer range, and it is not unlikely that it has somewhat different habits of song further within the area of its distribution.

In some years I have missed its note after the last days of June, and my latest date, July 20, is isolated in my record, the nearest approaches to it being July 12 and 14.

Trochilus colubris. RUBY-THROATED HUMMINGBIRD.

The only sound I ever heard from this bird was an excited chipping. My books show no record of this after the breeding season.

Chætura pelasgica. CHIMNEY SWIFT.

The rapidly accelerated chatter which the Swift runs off so airily while on the wing, accompanies its flight through most of the summer—in fact as long as the birds remain common. This may be from early August till well on towards the end of the month.

Late in the stay of the species I have sometimes heard their full notes while watching small companies of the birds tarrying at dusk over low grounds and meadows to join the Swallows insect-hunting.

In the summer the Chimney Swifts are disposed to be liveliest late in the day, and the warm evenings are enlivened by their nervously rapid twittering as in wisps of two or three or more they race with astonishing velocity through the air.

But they are quickly affected by a fall of temperature, and in suddenly cool evenings, chiefly in late summer, are to be seen flying silently about in marked contrast with their usual noisy demeanor.

Caprimulgus vociferus. WHIP-POOR-WILL.

I have never heard the notes of the Whip-poor-will after the middle of the year, though it is well known to sing in the autumn. At Sing Sing, Dr. Fisher has heard it up to September 19; and it has been heard by different members of my family at the following times and places: Canaseraga, N. Y., July 24, 1871; Scarsdale, N. Y., August 31, 1880; Bay Ridge, L. I., August 10, 1881.

Chordeiles virginianus. NIGHT-JAR.

The sharp cry of this bird is to be heard in spring, summer, and autumn, and doubtless is independent of the seasons. I have no personal knowledge as to the seasonal limitations of its well-known 'booming,' and aerial evolutions.

Picus pubescens. DOWNY WOODPECKER.

In addition to its usual short, sharp note, the Downy Woodpecker has a rattling cry, which starts and ends with an abrupt

precision suggestive of a mechanical contrivance set off with a spring. This it uses in lieu of song. It is set off for the first time in the new year in March, usually about the middle, but sometimes earlier, and again not until the end of the month, or even early April.

It is in use through the summer and autumn, often becoming infrequent in October, and in November still more so, although in some years not ceasing altogether until the end of the month. On a few occasions I have heard it in winter.

The hammering of this little Woodpecker, which is often loud and resounding in great disproportion to the bird's size, is introduced into the woodland sounds about the time its song-notes begin. In early seasons I have heard it by the middle of February.

Sphyrapicus varius. YELLOW-BELLIED WOODPECKER.

The Yellow-bellied Woodpecker poses in a very different character as a traveller than as a settler in its summer home. By reference to Dr. Merriam's entertaining paper on this bird, in the 'Bulletin of the Nuttall Ornithological Club' for January, 1879, we learn of its habits on its arrival in Lewis County. There it is bold, familiar and preposterously noisy. In the region of which I write it is in general a reserved and quiet bird, and does not often indulge in hammering, even in the spring. Perhaps at the time it passes—April—it is not ready to begin courtship, and drumming, which, as with other Woodpeckers, in a measure takes the place of song, is deferred until the birds are ready to seek their mates.

But though the species in general is undemonstrative with us, there may be an occasional noisy individual. I can cite a good instance under date of April 8, 1880: On the morning of that day a high-plumaged male had chanced upon a wonderfully resonant hollow limb in an old chestnut tree in open woods. No true Woodpecker could miss turning such an occasion to account, and the hard barkless shell was made to do good service. With great satisfaction the bird would deliver at short intervals a loud tattoo—a run of about eight determined raps in irregular succession. After each sally it would throw back its red-patched head with an

air of satisfied achievement and survey the woods, which seemed doubly silent after the loud reveille.

I have never known this Woodpecker to drum in the autumn. At that season it seems especially reserved. Many take up their habitation in orchards or on private grounds where there are old apple trees, and from their silence and the close manner in which they hug the limbs seem to haunt them with a constant suspicion, although they are not shy of approach. In these trees they keep up a feeble, restless picking, in their microscopic search of the bark for their hidden food. This is the only sound I have heard from them in the autumn, except an occasional low scream, which may rarely be uttered in the winter.

Melanerpes erythrocephalus. RED-HEADED WOODPECKER.

This fine bird is usually uncommon about New York, and long periods may elapse when it appears to be altogether absent. But it is liable to come in flocks any autumn, when many may stay and spend the winter.

The species was common from September, 1881, until the middle of the following May. Their usual note—a guttural rattle, similar to the cry of the tree-toad (*Hyla versicolor*)—was kept up all through the winter. In April their vocabulary was augmented by a hoarse, hollow-sounding cry. Then the birds in small companies still occupied the same woods where they had passed the winter, but were more noisy and active, and would sometimes set up a confused screaming all together. The tree-toad rattle I have also heard in August.

Colaptes auratus. GOLDEN-WINGED WOODPECKER.

The well-known High-hole has, for a Woodpecker, a very varied repertoire. Its long rolling call may be taken as especially representative of song, and is a characteristic sound of the empty woodland of early spring. It is usually given from some high perch, and has a free, far-reaching quality, that gives it the effect of a signal thrown out over the barren country, as if to arouse sleeping nature. This call continues irregularly through the summer, but then loses much of its prominence amid the multi-

tude of bird voices. It is not infrequent in September, but later than the middle of October I have not heard it.

Another vocal acquirement of the High-hole is a sound much like that caused by the whetting of a scythe. These notes I have recorded from April 8 to September 5; but there seems to be no seasonal regularity about their utterance. The species has also some singular, conversational-like tones, and other notes, which are usually uttered when the birds are in company, and are sometimes attended with a great show of bowing and obsequious conduct.

It is hardly necessary to allude to the familiar call-cry of the species, which may well have conferred the name Clape which the bird bears in certain sections.

In the breeding season the High-hole seems to be quieter than either before or after, perhaps from considerations of caution.

Ceryle alcyon. KINGFISHER.

When the Kingfisher is present in winter its loud rattle is given with as much vigor as at other seasons.

THE CUCKOOS.

Our Cuckoos have a variety of notes, some of which are certainly common to both species. I have never been fortunate enough to determine positively which were distinctive of either, and the notes of both are confused in my records.

Cuckoos continue in voice after their arrival until from the middle to the end of August. Later in the season their notes are faint and brief; latest records for such are September 4 and 14.

Scops asio. SCREECH OWL.

The Screech Owl shows a very perplexing irregularity through the year in the use of its strange quavering cry. This much is plain from my records, which, however, are not sufficiently full to give a clear reading of the larger facts. But that the bird is noisy or the reverse with some reference to the time of the year there can be no doubt. The late summer, far more than the

spring, seems to be the season when its cry is most frequent and most regular from year to year. Usually, after a considerable time of silence, it begins to quaver in July or in August, thence continuing off and on until winter. But there is no great regularity about this; simply my notes through a series of years cover all this period, and the bird is to be heard in one or more of the autumn months every year.

I am not without scattering records of having heard it in winter; but it is virtually a silent bird from December or earlier until March or later.

With some uniformity it is to be heard for a short time in late March or early April; but I have not a record for late April, May, and June.

Philohela minor. WOODCOCK.

Although the aerial manœuvres of the Woodcock at dusk and in the dark are, freely speaking, familiar to us all, in a stricter sense there is still a prevailing ignorance in regard to them.

My journal supplies the following, slightly adapted, under date of April 19, 1884: The birds would start up from amid the shrubbery with a tremulous whirring sound of the wings, rising with spiral course into the air. The spiral varied considerably in pitch, sometimes expanding to sweep far out over a neighboring field, when a single revolution would carry the bird upward almost to the extremity of its flight, which was sometimes directly over the point of departure. The rapid trilling sound with which it started off, as Woodcocks do, continued without interruption during the ascent, but gradually became more rapid, and as the bird neared its greatest height passed into pulsations of quavering sound. Each pulsation was shorter and faster than the last, and took the tremolo to a higher pitch, sounding like a throbbing whirl of fine machinery, or suggesting in movement the accelerating rhythmic sound of a railway-car gradually gaining full speed after a stop. At last, when it seemed as if greater rapidity of utterance was not possible, the vertex of the flight would be reached, and, descending with increasing swiftness, the bird would break forth into an irregular *chippering*—almost a warble—the notes sounding louder and more liquid as it neared the earth. Suddenly

there would be silence, and a small dark object would dart past through the dusk down amid the shrubbery. Then, at silent intervals, a single strange and rather startling note — a loud, sharp and somewhat nasal *speat* or *spneat* — which sounded as if delivered with a spiteful directness at some offensive object.

I had no means of estimating the height of the bird's ascent, but in the evening dusk it went up almost out of sight.

This performance I have heard at midnight on the bird's arrival in spring. It is also said to take place in the early morning. Is it ever indulged in the autumn?

WINTER BIRDS OF PRINCE EDWARD ISLAND.

BY FRANCIS BAIN.

PRINCE Edward Island, situated in the southern basin of the Gulf of St. Lawrence, possesses in some respects a climate peculiarly its own. Sheltered from the chilling breath of the Labrador Current by the elevated primary ridges of Nova Scotia and Cape Breton, it enjoys a summer season with a more elevated temperature, a purer atmosphere, a clearer sky, and more abounding sunshine on its rich, verdure-clad swells, than are to be found on the immediate Atlantic seaboard.

In winter, on the contrary, the shallow waters of the Gulf are soon covered with ice, sometimes extending unbroken as far as the Magdalens, and the temperature of the season is uniformly severe. Snow lies deep on the ground, and the rivers and bays for four months are firmly locked in ice. The atmosphere, however, is pure and bracing, and free from the damp chilling mists of the ocean seaboard.

These conditions have an influence on our winter avifauna. Water birds which frequent bays and mouths of rivers are completely driven away. Only a few deep-sea fowl stay to glean a hardy living where the blue waves break among the parting flocs. The depth of snow is unfavorable to members of the Finch tribe which, like the Tree Sparrow, seek their living from seeds on the ground. But the splendid deciduous forests which flourish

on the fertile New Red Sandstone soil, afford food to some of the tribe during the inclement season, which are not known to winter in the neighboring Provinces.

The Purple Finch frequently winters here. He does not frequent the abodes of men, but the lonely forest, where the domed summits of the great yellow birches, *Betula excelsa*, are thick-laden with strobiles, is his home. The stay-at-homes never see him. But on a keen, bright morning, when the gilded twigs are surging aloft in the frigid blue, from their loftiest tops rings out the glad, sweet carol to startle and charm the adventurous woodman.

Strange that the occurrence of a roving song bird in a district should be connected with the distribution of the ancient geological formations. But it is so. The soils of the New Red Sandstone formation sustain a class of plants affording more suitable food for the forest choresters than is to be found in the Primary districts. The Connecticut Valley is well known as the winter home of many of our song birds. Western Nova Scotia has features of bird life distinct from the surrounding districts. And Prince Edward Island affords an oasis for the wintering of certain Fringillidæ in the midst of less fertile Primary lands.

The highly cultivated character of the country, with numerous stock yards and farmsteads, favors the wintering of birds. The Song Sparrow has been supposed not to winter north of Massachusetts. But among the stock yards of Prince Edward Island we often find the jovial songster tuning his pipe in midwinter as gaily as if he was in his old New England homestead.

In the latter part of October the Snow Buntings come here. It is worthy of remark that they appear in New Brunswick considerably earlier, indicating that they arrive from the North by that way instead of by direct flight across the Gulf. At first they do not frequent the cultivated districts, but may be seen foraging along the shores and in deserted grainfields. In December, when snow and ice bury up their food in the wilds, they come about the grain stacks and farm yards in large, white flocks, whirling, like snow drifts, in the keen winter air. They are very fond of oats, for which this Island is famous. They always shell the grain before devouring it, using only the farinaceous kernel.

It is rare to hear Snow Buntings sing, but on a bright morning in March, ensconced in a sheltered nook, I have heard them sing

a low, sweet song, resembling the Linnet's in general outline, but much less strong, full, and rapid.

The Redpolls arrive the first week in November, when the ripened and gilded cloak is just reft from the forest boughs. Then we see little of them, but will occasionally hear their gentle chitter as they pass back to the groves of great yellow birches, on the seeds of which they principally feed. Free and happy is their life in the wilderness now, as you may witness if you watch a group of them whispering and calling sportively as they rifle the seeds from the crowded strobiles of a giant *excelsa*. But when winter fully comes they are driven from the forest's summit, evidently suffering from the cold. They then crowd close in shivering flocks of fifty or more, and come and feed on hay stacks and on the seeds of goosefoot, polygonum, and other weeds about the gardens. I have seen the hunger-driven flock settle on loads of hay exposed for sale in the city market. Yellow birches are our only deciduous forest trees which carry a quantity of seeds through the winter, and it is this circumstance which makes them so important for the support of the winter flocks.

The Goldfinches leave the last of October, the last individuals evidently suffering during cold storms, and their place in winter is taken by a few wild, bounding Pine Goldfinches, whose slim voices sound sweet notes round the dark spires of ancient spruces where the White-winged Crossbills feed. We sometimes have large flocks of Red Crossbills, but their coming is very uncertain. They were in force in December, 1877, and in January, 1884. Spruce seeds were abundant both these seasons.

Pine Grosbeaks come in November, but their numbers are uncertain. When coniferous seeds are plenty, flocks of fifty bright-plumed beauties, with their gentle, unsuspecting, wilderness-ways and soft voices, come frequently about the spruce groves. But when these are scarce, as they are this season, it is rare to hear the call of a solitary wanderer in the most unfrequented forest scene. But Grosbeaks are not dependent alone on a precarious supply of cone-borne seeds for a living. They feed much on the buds of the trees, and will even go to the shores for a meal, like Buntings and Robins.

In midwinter they retire to the shelter of the deep, coniferous forests. On a sunny morning, when the fir drapery flashes with crystals, the group of forest wayfarers may be found in their

sheltered home, keeping each other company with quiet flocking calls, a male constantly breaking into a delightful Linnet-like song, with some peculiarly rich flute-notes of his own. In such circumstances they do not mount the blast-swept summits of the trees but content themselves with foraging on the lower sheltered boughs.

All these winter visitants, except Snow Buntings, are irregular and uncertain in their appearance here. During mild seasons we have them in numbers, but cold and stormy winters drive them to districts where food is more easily obtained. But Grosbeaks and Crossbills are never in numbers unless coniferous seeds are abundant.

But few Tree Sparrows winter here, although they are abundant in November. Black Snowbirds are almost equally rare, and it is only now and then that Robin favors us with his presence during the dreary months. One or two will sometimes stay where the berries of the mountain ash (*Sorbus americana*) are plenty.

Our only permanent residents really abundant in the winter months are the little Black-capped and Hudsonian Chickadees. We have rarely any Shrikes, and the Chickadees' mode of nesting secures them against the larger birds of prey, and, being the only insectivorous tribes of consequence during winter, they have an ample supply of food, so that they enjoy a regular paradise here among the groves of gray lichen-fir. Everywhere you turn, even in the most severe weather, a merry *chick, pee dee* greets you, and a little black cap bobs from among the snow-laden boughs.

The Hudsonian Chickadee is less pert and obtrusive than its black-capped friend. Like a coy maiden in sober brown it keeps to the retirement of the thickets, attracting little attention with its soft, whispered notes. I think that both species, though plenty at all times, are less abundant in midwinter.

The Gold-crested Kinglet, and the Red-bellied and White-bellied Nuthatches are permanent residents, though by no means abundant. Besides the Downy and Hairy Woodpeckers, and a rare Black-backed Woodpecker, the Brown Creeper may sometimes be seen in midwinter. Blue Jays are numerous, but Canadian Jays uncommon. During severe winters Crows get very scarce, yet a few will brave the most Arctic temperature while grain stacks are to be pilfered from.

Goshawks are resident here and the terror of the desolate winter forest. Often we see the blood-stained snow and the scattered feathers of a Jay, or the fur of a hare, where this marauder has had his meal.

Among Owls, the Barred and Horned Owls are the most common. The Snowy Owl visits us in winter; and the curious bell-like tones of the little Acadian Owl form the first voice of spring in the wintry woodlands.

After the ice closes round the Island in January we see but few water fowl. Yet, in mild winters, occasional Golden eyes, Oldsquaws, Mergansers, or Eider Ducks, may be observed. Herring and Black-backed Gulls come in during softer spells and survey the ice-locked bosoms of the harbors for some quieter opening to fish in. But the Terns and the great fleets of Bonaparte Gulls, that all summer long drifted, like snow-clouds, round the blue bays, had all left in October, when these were first silvered with the breath of December.

The Kittiwake is the true bird of the wintery wave. In the narrows of the harbor, where the contracted current is swiftest, there is often a restricted opening in the ice, even in midwinter. When the deep waters of the Gulf are frozen solid as far as the eye can see from the most elevated hilltop, the Kittiwakes will come in and gather round this little spot of blue, circling and dipping and rending the keen air with their harsh *ke-a, ke-o*; reminding us, as we watch them amid nature's fiercest aspect, of the amazing possibilities of animate being.

It will be observed that our northern visitors are about the same as appear in the neighboring Provinces of the mainland. It is otherwise with our summer visitants from the South. A number of birds of more southern habit, as the Catbird, Bluebird, Scar, let Tanager, Rose-breasted Grosbeak, Indigo Bunting, Bobolink-Red-winged Blackbird, Meadow Lark, Baltimore Oriole, and Whip-poor-will, which visit New Brunswick and Nova Scotia, are never seen on Prince Edward Island. There is no reason to be found in the existing state of things why some of these birds should not stay over here and enjoy our delightful summer season, which is superior to that of the Atlantic seaboard. The reason is to be found in the fact that the Island was separated from the mainland in the earlier days of the modern period, when the climate was cooler than at present, and the more southern

tribes of birds had not yet distributed themselves in these northern Provinces. Since their distribution in these parts the Northumberland Straits have proved a barrier to their movements which they have not yet learned to overcome.

In studying the botany of the Maritime Provinces we find that the same thing exists in regard to the plants of Prince Edward Island. Many plants of more southern habit, common to the Provinces of the mainland, have been excluded from the Island by its early separation from the continent.

In the birds the fact shows the exceeding tardiness with which they adopt new lines of migration, and, consequently, the tenacity with which they adhere to established habits in their migrations and distribution.

It also reveals something of the great northward movement of the feathered tribes which must have followed the recession of the cold of the Glacial Period, pointing out those which were the last to arrive within the limits of these Provinces.

NOTES ON MANITOBAN BIRDS.

BY ERNEST E. T. SETON.

THE Peregrine Falcon (*Falco communis*) is a regular summer resident of this country, although, for some reason as yet unknown, it is not often seen on the Big Plain until August. I have had a number of good opportunities of studying the bird. It has several times visited the poultry-yard. On four occasions I have known the bold pirate to continue dashing round the barns whilst shot after shot was fired at him; on one of these he flew off after the third shot, probably hurt. On another occasion he was killed at the third shot, after killing his victim. On a third the fourth shot drove him off, and on yet another the fifth shot brought the bold bird to the ground. This last was a young male; his injuries were very slight, and so he was kept alive and sent to me. I kept him three weeks in captivity, and had a good opportunity of making notes. The vocal sounds uttered by this bird were three in number; a hissing menace, like that

of the Owls, an exceedingly loud and piercing scream of anger, and a reiterated shrieking, almost exactly like that of the Kestrel, but stronger and in a deeper key. The regal beauty of this bird, his proud, conscious look of strength and power, the snap and fire of his every movement, can only be appreciated by those who have had an opportunity of judging for themselves.

Baird's Bunting (*Passerculus bairdi*) is a species of considerable interest. It is exceedingly abundant in suitable localities of this country. I give the following in full from my unpublished notes on the Birds of Manitoba.

I found this species throughout Western Manitoba wherever the surroundings were congenial. On the Big Plain it is fairly common, but on the prairies of the upper Assiniboine it is exceedingly abundant. I traversed that country in June, 1884. At that time all the birds were in full song. The scrubby prairies, from the Finger Board to Shoal Lake, were vocal with the songs of Shattuck Buntings and Savanna Sparrows; where the prairies widened and became more clear, the loud Meadow Lark joined in, or when the trail dipped into some hollow where the red willow was thickly growing, the husky-voiced Leconte's Sparrow added his weak song to the tumult. But in the low flats by Shoal Lake, where the ground was hard-baked and sparkling with alkali, where the grass was scanty and wiry, a new voice lent its aid to the choir, for here is the favorite haunt of Baird's Bunting. Whenever the trail crossed one of these dry alkali flats, the notes of this bird were sure to be heard on all sides. The song may be rendered *trick-e-trick-e-trik-eeee-chiky-le-roit*, with a peculiar tinkling utterance that at once distinguishes it from the song of the Savanna Sparrow. Another type of song with this species is like *trick-e-trick-e-trike-e-trrrrrrrrr*.

In the Shell River country the dry alkali bottoms were more frequent, and the Bunting became numerous in proportion. I found its nest also, but will not describe it, as I was unable to substantiate the fact by shooting the bird.

The general habits of this bird are much like those of the Savanna Sparrow. When singing it is usually perched in some tuft of grass, each foot grasping a number of stalks to furnish support. When disturbed, it flits low over the flat and drops into the grass.

A number of the specimens taken were rather larger than the measurements commonly given. The gizzards generally contained hay seeds and small insects, but a large, green caterpillar was found in one of them.

The latest record I have is September 23. Shortly after this they must have flown southward.

Another interesting resident of the northern prairies is the Missouri Skylark (*Neocorys spraguei*). It is one of the commonest of prairie birds in Western Manitoba; its loud ventriloquial voice is heard from the clouds on all hands when it is in full song. It commonly arrives on the Big Plain about the 3d of May, and by the 6th or 7th is rested and singing. In order to give a better idea of the numbers of this species, I counted those that I passed beneath in a three-mile walk across the prairie on the 10th of May; altogether there were twelve, trilling their silvery notes in the bosom of the clouds.

This song was for long a riddle past my solving. I felt sure of its being the utterance of some bird on the prairie, but where I could not tell nor trace; wherever I went, it seemed to be just a little further ahead, or to one side or another, or suddenly behind. Throughout the whole season of 1882 I was thus duped, and it was by chance that at last I found the singer to be away up in the sky, but so high that on a bright day it is impossible to follow with the eye the tiny speck whose music is shaking the air for thousands of feet around. The song is sweet and far-reaching, and Dr. Coues gives a most enthusiastic description of its moving power and melody, yet, though I am readily influenced by bird music, I never found this singer impress me with the love and reverence invariably inspired by such as the Veery utters, a bird whose notes resemble these as nearly as possible.

When the Skylark feels the impulse to sing, he rises from the bare prairie ridge with a peculiar bounding flight, like that of the Pipit; up, in silence, higher and higher he goes, up, up, one hundred, two hundred, three hundred, five hundred feet; then, feeling his spirits correspondingly elevated, he spreads his wings and tail and utters his loud song, like *tsing-tsing, tsingle-ingle ingleingleing*, the single vibratory note uttered faster and faster till the last ones are all fused. While this is being sung the bird is floating downwards, and as soon as it

is finished he proceeds, by the bounding-flight, to regain his elevation and once more pour out his silvery strains. On the 14th of May I noted one of these birds singing with great devotion. He had trilled his refrain at least twenty times, when it occurred to me to time and count his songs. The whole of each trilling occupied fifteen seconds, and after I began to count he repeated it from beginning to end eighty-two times; just as he should have entered on the eighty-third, his wings closed, his tail went up, and down he fell headlong, but my eyes were blinded with the brightness, and my neck refused to take part in further proceedings, so that I was not able to mark the bird for closer examination. This singer had serenaded me for about an hour, and I do not think he ranked above his fellows in staying power. Several times after a Skylark had sung and returned to earth, with the headlong descent described, I have deliberately flushed him, and at once he rises without further preamble, soberly remounts his imaginary five hundred-foot platform, and again sings his trilling slurs from beginning to end. Thus on one occasion I called the same bird three times before the curtain, but on the fourth encore he would not respond; each time that he was disturbed, he would fly off some two hundred yards, and again settle on the ground. Once, only, have I observed this species singing his full song on the ground.

The other habits and common notes of this species have a considerable resemblance to those of the Titlark. It leaves the Big Plain about the end of August.

The finding of a new form of the Ruffed Grouse within the limits of territory tolerably explored is not an occurrence that any student would have expected. Yet in the woods of Manitoba is a well-marked variety, which is known there as the Red or Copper-ruffed Partridge. In general appearance this bird differs but little from the well known *Bonasa umbellus umbelloides*, but it is distinguished by being more decidedly marked,—thus the bars on the belly are complete and nearly black,—and by having copper-colored touches on the back, the subterminal tail-band and the *ruff* a rich, iridescent, *coppery red*.

Mr. Ridgway, commenting on a specimen sent him, says: "This grouse is the handsomest bird of the species I have ever seen; so far as general plumage is concerned it is decidedly referable to *B. u. umbelloides*. . . . It is quite peculiar enough in

plumage to represent a distinct local race, provided the differences are reasonably constant."

And later, the same authority writes, "I do not think that a new race can be characterized, the 'copper-ruffed' birds forming a sort of connecting link between *umbellus* and *umbelloides*."

To this I reply, first, that we have in Manitoba a *Bonasa* which, in its entirely rufous tail and general color, is very closely allied to *B. umbellus*, if, indeed, it is not absolutely that form. Second, we have the well-known *umbelloides*. Third, there are all grades between these two. Fourth, the form with the copper ruff. And all of these are found in the same woods, sometimes in the same pack. The relative proportion of each is, perhaps: *umbellus* 10 per cent; *umbelloides*, 20 per cent; grades between these, 60 per cent; copper-ruffs, 10 per cent. So far I have not seen any indications of intergradation in color between the last-named and the other forms.

Mr. C. W. Nash, an accomplished naturalist and sportsman, now residing at Portage la Prairie, Manitoba, writing me on the subject, strongly objects to the form being considered only a chance variation, as it is the most stable of those found in the country. He asserts that 10 per cent is too small a proportion, and adds that the most brilliant ruffs he ever saw belonged to a bird which had the purest gray tail of any he had shot, and which was also the largest bird he killed last season.

Dr. Brodie informs me that many years ago this variety was of frequent occurrence in the country north of Tpronto. The settlers recognized it as, in a measure, distinct from the common Partridge, and superior to it in size and beauty.

If this form can be shown to be geographical I shall claim for it the rank of a variety, but with my present information can but think with Mr. Ridgway that not only this, but perhaps all of our Canadian *Bonasa*, are more or less referable to the form *umbelloides*. The brilliant coloration of the Grouse may prove analogous to the remarkable variations exhibited by several of our Hawks and Owls.

LONG ISLAND, N. Y., BIRD NOTES.

BY NEWBOLD T. LAWRENCE.

In the following notes, I take pleasure in recording several additional captures to those already mentioned in a list of 'Rare Birds taken on Long Island, N. Y.', published in 'Forest and Stream,' May 2, 1878.

1. *Polioptila cærulea*. BLUE-GRAY GNATCATCHER.—Shot a female of this species at Far Rockaway, April 18, 1874.
2. *Dendroeca castanea*. BAY-BREASTED WARBLER.—Secured an adult male in a small grove of oaks at Far Rockaway, June 23, 1870. Mr. Eugene P. Bicknell has a record from Riverdale, N. Y., dating July 26, 1875. He also informs me that, from records kept of this bird for a number of years at Riverdale, N. Y., in its regular migration, the latest spring record is the end of May, and the earliest fall record the middle of August.
3. *Vireo philadelphicus*. PHILADELPHIA VIREO.—Mr. Eugene P. Bicknell, while staying with me at Far Rockaway, had the good fortune to secure a fine specimen of this Vireo on September 25, 1879. I had the pleasure of skinning the bird, which proved to be a male. This is the first record of its capture on Long Island.
4. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW.—Shot a specimen of this bird at Far Rockaway, May 30, 1882. Another was noticed in its company but not secured.
5. *Passerculus sandwichensis savanna*. SAVANNA SPARROW.—This bird, I think, may now be included among the winter residents on Long Island. I have taken specimens at Far Rockaway during November and December, and one (male) January 1, 1884. Mr. Wm. Dutcher secured two specimens at the same place on February 23, 1885.
6. *Ammodromus maritimus*. SEA-SIDE FINCH.—One specimen (female) taken on the salt meadow at Far Rockaway, February 22, 1884. Another was noted, but not secured, November 25, 1885.
7. *Caprimulgus vociferus*. WHIP-POOR-WILL.—On April 26, 1885, Mr. Henry DeForest found a nest of this bird at Oyster Bay, containing two eggs; the following week, May 3, he again visited the spot, and found young birds that had evidently been hatched several days. I record the above as an unusually early date. J. P. Giraud, Jr., speaking of this bird in 'The Birds of Long Island,' says, "It arrives on Long Island about the first of May, from the South; in the latter part of the same month the female commences laying."
8. *Nyctale acadica*. SAW-WHET OWL.—Mr. Osborne killed one of these birds on Montauk Point, November 20, 1885.
9. *Ardea cærulea*. LITTLE BLUE HERON.—On April 3, 1885, while taking a tramp over the salt meadows at Far Rockaway, I started a Little

Blue Heron from a small pond near the sand hills. The bird flew almost out of sight. It finally lighting, I walked to about where I thought the bird had gone down, and on following the banks of a small creek, had the good fortune to flush the bird within twenty-five feet, when I secured it. It proved to be an adult male. This is my first record of the Little Blue Heron on Long Island, and I think it is an unusually early date.

10. *Ochthodromus wilsonius*. WILSON'S PLOVER.—Mr. Harold Herrick secured a male of this species at Far Rockaway, May 17, 1879. Two others were seen by myself the same day but not secured.

11. *Macrorhamphus griseus scolopaceus*. GREATER LONG-BEAK.—Secured a specimen in Fulton Market, New York, October 15, 1884, killed on the south side of Long Island.

12. *Micropalama himantopus*. STILT SANDPIPER.—I have always found this bird unusually common in the vicinity of Far Rockaway, and should like to give my experience with it on two occasions during the past two years. On September 10, 1883, I was shooting on the meadows; wind east; rained from six A. M. until twelve M. On that day I had three flocks come to my decoys, composed of Little Yellow Legs and Stilt Sandpipers, and numbering from fifty to one hundred birds in each. I killed nineteen, twenty-one, and ten, respectively; among them were twenty Stilts.

On July 28, 1884, there occurred one of the largest flights of Bay Birds at Far Rockaway that I have seen in a number of years. The day was bright and clear, with a light southerly wind; it had stormed hard from the East all the preceding day. The flight was composed almost entirely of Little Yellow Legs and Stilt Sandpipers, every flock containing more or fewer of each. Saw several flocks composed entirely of Stilts. One numbering twelve came to my decoys and I killed them all. I secured that day twenty Stilt Sandpipers, all old birds. On both the dates mentioned a great many flocks of traveling birds were seen flying very high; some of them must have numbered over two hundred individuals.

13. *Actodromas bairdii*. BAIRD'S SANDPIPER.—Shot a female of this species on the salt meadow at Far Rockaway in August, 1882. Entirely alone when captured.

14. *Numenius borealis*. ESKIMO CURLEW.—During a period of about twelve years' Bay Snipe shooting at Far Rockaway and vicinity. I have only four records of this bird,—one September 12, 1875, one September 10, 1876, and two September 26, 1884.

15. *Numenius longirostris*. LONG-BILLED CURLEW.—My experience with this bird in the vicinity of Far Rockaway is to find it more uncommon than the preceding, having but two records during the same period of time. The first, a female, was killed on the ocean front of the outer beach, in company with a flock of Bartram's Sandpipers (*Bartramia longicauda*), August 20, 1873. The second was shot on the salt meadow, August 26, 1885. I might mention here that the *Numenius hudsonicus* is common, the flight generally taking place from the 10th to the end of July.

16. *Steganopus wilsoni*. WILSON'S PHALAROPE.—On October 10, 1874, I had one of these birds settle in my decoys, swimming among them quite

fearlessly. On October 15, 1879, I saw one swimming in the East River at the foot of Pine Street, New York City. It was very gentle, the steamer I was on passing within twenty-five feet of it, when it started, flew a short distance, and settled on the water again.

17. *Rallus longirostris crepitans*. CLAPPER RAIL.—This bird seems to be a winter resident on Long Island. Mr. Wm. Dutcher informs me that the gunners at South Oyster Bay see a few every winter. I have the following records from Far Rockaway: Nov. 9, 1872; Nov. 25, 1883; Dec. 5, 1884. Messrs. Wm. Dutcher and L. S. Foster found a freshly killed specimen on the outer beach, February 23, 1885.

18. *Porzana noveboracensis*. YELLOW RAIL.—At Far Rockaway, Oct. 15, 1883, while crossing a large field within a short distance of the salt meadow, I started one of these Rails, but having no gun I did not secure it. It was very gentle; I flushed the bird three times, it rising at first within a few feet and flying but a short distance. Mr. Harold Herrick informs me that he started a Yellow Rail on the Jamaica Bay meadows, near Far Rockaway, in October, 1882, but failed to shoot it.

THE BLACK-CAPPED VIREO AND NONPAREIL IN SOUTHWESTERN KANSAS.

BY N. S. GOSS.

WHILE collecting and observing the birds in Comanche County, from May 7 to 18 inclusive, 1885, I captured three pairs of *Vireo atricapillus*, and saw quite a number, all in the deep ravines in the gypsum hills on the Red or Salt Fork of the Arkansas River, near the town of Rumsey. The birds were quite bold and noisy, but this may be the case only during mating and the early part of the breeding season. They are very pleasing singers, their song being not like the 'who's-afraid,' jerky notes of the White-eyed Vireo, nor as loud as those of the Red-eyed, but a more warbling and varied song than that of any of the family which I have heard.

On the 11th I found a nest near the head of a deep cañon, suspended from the forks of the end of a horizontal branch of a small elm tree, about five feet from the ground. It was screened from sight above by the thick foliage of the tree, and the larger surrounding trees; but beneath for quite a distance there was nothing to hide it from view. The material, however, of which it was made so closely resembled the gypsum that had crumbled

from the rocks above and thickly covered the ground, that I should have passed it by unnoticed had I not on my near approach been attracted to the spot by the scolding and the excited actions of the birds. On discovering the nest I did not stop to examine it, but kept leisurely on my course until out of sight; then cautiously turned back, and at a safe distance had the pleasure of seeing both the birds busily at work building their nest, then about two-thirds completed. The nest is hemispherical in shape, and composed of broken fragments of old bleached leaves, with here and there an occasional spider's cocoon, interwoven together and fastened to the twigs with fibrous strippings and silk-like threads from plants and the webs of spiders, and lined with fine stems from weeds and grasses. On the 18th, my last day in the vicinity, I went to the nest confidently expecting to find a full set of eggs, but on account of the cold, wet weather, or from some other cause, the bird had not laid, and I had to content myself with the nest.

That the bird is quite a common summer resident in the vicinity may be safely set down as certain, and I think the species, now so little known, will prove to be abundant in suitable locations from Medina and Comal Counties, Texas, where they were found nesting in the spring of 1878, by Mr. Geo. H. Ragsdale and Mr. W. H. Werner (see Bull. Nutt Orn. Club, Vol. IV, No. 2, pp. 58, 99, and 193), north to and into the gypsum formation in Southwestern Kansas.

The description of the color and markings of the species has been so correctly given by others that I do not think it necessary to take up further space than to touch upon the points respecting which the accounts differ, viz.: The broad white orbital ring does not meet over the eyes, the black running down and separating it for a space of about .10 of an inch. The top and sides of the head in front, in the female, are blackish, fading gradually posteriorly to ashy slate. The other markings are similar to those of the male, but not so bright.

The following notes, from my catalogue and register, are from memoranda taken at the time of killing:—

Sex.	Length.	Alar extent.	Wing.	Tail.	Tarsus.	Bill.
♂	4.65	6.95	2.15	1.80	.73	.39
♂	4.60	6.90	2.12	1.75	.73	.39
♀	4.40	6.80	2.10	1.70	.73	.38
♀	4.40	6.80	2.10	1.70	.73	.38

Iris light *brick* red; upper mandible black; lower mandible blue; edges and tip of both whitish; legs, feet, and claws deep blue.

I found *Passerina ciris* also quite a common summer resident in the same vicinity and localities. The birds were very shy. I succeeded, however, in shooting a pair. Their sweet song greeted me along the streams and in nearly every ravine or cañon that I entered.

THE BIRDS OF SOUTHEASTERN DAKOTA.

BY G. S. AGERSBORG.*

CLAY County, and also parts of Union and Yankton Counties, have been thoroughly searched by the writer for the last sixteen years, especially Clay; also parts of Lincoln and Minnehaha Counties, with an occasional trip further north. The topography of this part of the country is not very varied, being mainly high, undulating prairie, and low, often marshy, bottom lands. The counties are bordered on the south by the Missouri River, and traversed from north to south by the Big Sioux, Vermilion and Dakota Rivers. It is essentially a prairie country, there being very little timber except along the Missouri, and at different places on the Big Sioux. We find no true lakes, but a number of reedy swamps, which are the resort of myriads of water birds during the migrations. Collecting trips have also been extended to Cedar and Dixon Counties in Nebraska, separated from Dakota by the Missouri River. The topography of these counties differs somewhat from that of Southeastern Dakota, the land being higher, drier, better timbered, and more broken by deep ravines. The avifauna is the same, but many of our Dakota birds, as Swainson's Buzzard, the Turkey Buzzard, and the Swallow-tailed Kite find there better breeding resorts, and consequently are there more abundant.

Several birds given by Professor Aughey in his 'Report on the Nature of the Food of the Birds of Nebraska,' which I have failed

* Revised by Prof. W. W. Cooke.

to find, after the most diligent search, in the counties named by him, but I hope sooner or later to add them to my list.

I would further state that all the species of the subjoined list are given on the basis of actual capture.

1. *Merula migratoria*. AMERICAN ROBIN.—A not very abundant summer resident. I have known it to winter here four times. A temperature of 39° below zero did not seem to drive them off. In winter they feed on the berries of *Rhus glabra* and *Symphoricarpus vulgaris*, occasionally visiting decayed trees for larvæ, cocoons, etc. Eggs ready to hatch found as early as May 1.

2. *Hylocichla ustulata swainsoni*, OLIVE-BACKED THRUSH, and its variety *aliciæ* are common spring and fall migrants, *aliciæ* being the more abundant of the two. Arrive the last week in April, and remain for three weeks, during which time they grow very fat. Their return passage in the beginning of October is rather hurried.

3. *Hylocichla fuscescens*. WILSON'S THRUSH.—A rare summer resident; have never found its nest.

4. *Hylocichla mustelina*. WOOD THRUSH.—Very rare. Breeds along the Missouri and Big Sioux Rivers.

5. *Galeoscoptes carolinensis*. CATBIRD.—A very abundant summer bird. Arrives about May 10 and leaves last week in September. Breeds everywhere.

6. *Harporhynchus rufus*. BROWN THRASHER.—Abundant all summer. Breeds. Nests found mostly in gooseberry bushes, sometimes on the ground.

7. *Sialia sialis*. BLUEBIRD.—Can barely call this a common bird here; have noted its arrival as early as February 1.

8. *Regulus calendula*. RUBY-CROWNED KINGLET.—Passes through here in small numbers about the middle of May; have never seen it in the fall.

9. *Regulus satrapa*. GOLDEN-CROWNED KINGLET.—More rare than the foregoing, and not met with every spring.

10. *Lophophanes bicolor*. TUFTED TITMOUSE.—Although given by Professor Aughey as abundant in Dakota County, Nebraska, only thirty-five miles distant, I have been unable to find it, the only Chickadee found here being

11. *Parus atricapillus septentrionalis*, LONG-TAILED CHICKADEE, which is an abundant species, especially in winter. Breeds.

12. *Sitta carolinensis aculeata*. SLENDER-BILLED NUTHATCH.—Resident; not common.

13. *Sitta canadensis*. RED-BELLIED NUTHATCH.—Also found in Dakota County, Nebraska, by Professor Aughey, but I have never seen it here.

14. *Certhia familiaris rufa*. BROWN CREEPER.—Not common; resident.

15. *Salpinctes obsoletus*. ROCK WREN.—Reported from Dakota County, Nebraska; not found here. It probably can not find congenial resorts with us.

- B* 16. *Troglodytes aëdon*. HOUSE WREN.—Common; breeds.
B 16 a. *Troglodytes aëdon parkmani*. WESTERN HOUSE WREN.—Rare; breeds here.
B 17. *Telmatodytes palustris*. LONG-BILLED MARSH WREN.—Summer resident; breeds.
B 18. *Cistothorus stellaris*. SHORT-BILLED MARSH WREN.—Very rare summer visitor; breeds.
 19. *Anthus ludovicianus*. AMERICAN TITLARK.—A very rare bird here. Only noticed twice; both times early in the fall.
 20. *Mniotilta varia*. BLACK-AND-WHITE CREEPER.—A not very common bird during spring and fall migrations.
 21. *Helminthophaga celata*. ORANGE-CROWNED WARBLER.—One specimen taken, May, 1879.
B 22. *Dendroeca æstiva*. SUMMER YELLOWBIRD.—Abundant everywhere in summer; breeds.
 23. *Dendroeca cærulea*. CERULEAN WARBLER.—Found in Dakota County, Nebraska, by Professor Aughey; has not been noticed here.
 24. *Dendroeca coronata*. YELLOW-RUMPED WARBLER.—Common spring and autumn migrant.
 25. *Dendroeca striata*. BLACK-POLL WARBLER.—Abundant for two or three days in spring; have never seen it in the fall.
 26. *Dendroeca maculosa*. BLACK-AND-YELLOW WARBLER.—Very rare migrant.
 27. *Dendroeca discolor*. PRAIRIE WARBLER, and
 28. *Dendroeca pinus*. PINE-CREEPING WARBLER.—These species, although found in the neighboring counties in Nebraska, I have never seen in Dakota.
B 29. *Siurus auricapillus*. GOLDEN-CROWNED THRUSH.—A not very common summer resident; breeds.
 30. *Siurus naevius*. SMALL-BILLED WATER THRUSH.—Passes through here every spring in large flocks; have never met with it in the fall.
B 31. *Geothlypis trichas*. MARYLAND YELLOW-THROAT.—Common summer resident; breeds.
 32. *Geothlypis philadelphia*. MOURNING WARBLER.—Single specimens occasionally found during the spring migration.
B 33. *Icteria virens*. YELLOW-BREASTED CHAT.—Summer resident; breeds; rather rare.
 34. *Myiodioctes pusillus*. BLACK-CAPPED YELLOW WARBLER.—Rare spring migrant.
B 35. *Setophaga ruticilla*. REDSTART.—Common summer resident; breeds.
B 36. *Pyrranga rubra*. SCARLET TANAGER.—Rare summer resident; breeds.
B 37. *Hirundo erythrogastra*. BARN SWALLOW.—Common summer resident; breeds.
 38. *Tachycineta bicolor*. WHILE-BELLIED SWALLOW.—Very rare.

39. *Tachycineta thalassina*. VIOLET-GREEN SWALLOW. — Probably accidental; breeds.
40. *Petrochelidon lunifrons*. CLIFF SWALLOW. — Common all summer; breeds.
41. *Cotile riparia*. BANK SWALLOW. — Common; breeds.
42. *Stelgidopteryx serripennis*. ROUGH-WINGED SWALLOW. — Much rarer than the preceding; breeds, in common with that species, along the Vermilion and Big Sioux Rivers.
43. *Progne subis*. PURPLE MARTIN. — Common every summer. Found breeding only in our towns; not met with in the country.
44. *Ampelis garrulus*. NORTHERN WAXWING. — In some winters a very common species. Its appearance in great numbers seems to depend upon the abundance of the wild grapes, on which it exclusively feeds. When the grape crop fails the Waxwing can not be found. It arrives late in December and remains till the last week of March.
45. *Ampelis cedrorum*. CEDAR WAXWING. — A rare winter visitor; also probably attracted by the wild grapes.
46. *Vireo philadelphicus*. PHILADELPHIA VIREO. — Reported by Professor Aughey from Northeastern Nebraska. I have never seen it here.
47. *Vireo olivaceus*. RED-EYED VIREO. — Occasionally one is secured late in the spring.
48. *Vireo gilvus*. WARBLING VIREO. — Rare spring migrant; found breeding by Professor Aughey across the Missouri River in Nebraska. I have never succeeded in finding its nest, nor have I seen the bird in summer.
49. *Vireo solitarius*. BLUE-HEADED VIREO. — Very rare during spring migrations.
50. *Lanius borealis*. GREAT NORTHERN SHRIKE. — A regular winter visitant; arrives early in October and leaves again in April. It seems to follow in the wake of *Spizella monticola*, and leaves in the spring at the same time.
51. *Lanius ludovicianus excubitorides*. WHITE-RUMPED SHRIKE. — A species we should expect to find here but which I have never seen. That it is not far away is proved by Professor Aughey in his Report. I may yet be able to add it to the list of Southeastern Dakota birds.
52. *Hesperiphona vespertina*. EVENING GROSBEAK. — A rare winter visitor: seen during severe winters only, and then in small flocks of from two to twelve. Feeds on sumac berries and elm buds.
53. *Carpodacus purpureus*. PURPLE FINCH. — Passes though here every spring in small numbers.
54. *Ægiothus linaria*. COMMON REDPOLL. — Seen in large flocks nearly every winter.
55. *Astragalinus tristis*. AMERICAN GOLDFINCH. — Common resident. In severe winters it may be absent for several weeks.
56. *Plectrophanes nivalis*. SNOW BUNTING. — Formerly abundant every winter but now only occasionally met with, and then associated with the Horned Lark. Its absence may be due to the changes through husbandry which this country has lately undergone; very little small grain is now raised, the chief crop being corn.

57. *Centrophanes lapponicus*. LAPLAND LONGSPUR.—A not very common winter visitor; always to be found on the bare fields or, towards spring, near creeks, in company with Horned Larks.

58. *Centrophanes pictus*. SMITH'S LONGSPUR.—Shot one a few years ago; it was alone in a flock of the following species.

59. *Centrophanes ornatus*. CHESTNUT-COLLARED LONGSPUR.—Passes though here every spring in large numbers, a few remaining to breed. About one hundred and fifty miles north of here they are common all summer. The males arrive in large flocks the last week in April, to be followed ten or twelve days later by the females, going in smaller and more straggling flocks.

60. *Passerculus sandwichensis savanna*. SAVANNA SPARROW.—Common summer resident; breeds mostly on the high table lands.

61. *Poecetes gramineus*. GRASS FINCH.—Summer resident; breeds.

62. *Coturniculus passerinus*. YELLOW-WINGED SPARROW.—Summer resident; breeds.

63. *Coturniculus lecontei*. LECONTE'S SPARROW.—Abundant for a few days the last of May. Found a nest on the Vermilion prairie, June 19, 1883, with five eggs ready to hatch. In coloration and shape they looked like miniature eggs of the Horned Lark. Some of the eggs were on the point of being opened by the chicks when found, and not being hard-hearted enough to rob the bird I left them alone. I am almost sorry now that I did not put them in alcohol.

64. *Melospiza lincolni*. LINCOLN'S SPARROW.—Reported from this locality by Lieut. Warren's expedition. I have never found it.

65. *Melospiza palustris*. SWAMP SPARROW.—Not very common summer resident; breeds.

66. *Melospiza fasciata*. SONG SPARROW.—Like the foregoing, this species is not a common summer resident.

67. *Junco hyemalis*. BLACK SNOWBIRD.—Very abundant in spring and fall; none remain here during winter. This bird is said to be a resident of Northeastern Nebraska by Professor Aughey, and it has also been noted from Fort Patten, Dakota, four hundred miles north of here. Why it shuns this locality, which abounds in food the year around, I am unable to guess, unless it is not elevated enough.

68. *Spizella monticola*. TREE SPARROW.—Our most abundant winter visitant. Large flocks seen everywhere in willow thickets and sunflower patches. Arrive early in October, and they do not all leave us before May 1.

69. *Spizella domestica*. CHIPPING SPARROW.—Not common; breeds.

70. *Spizella pallida*. CLAY-COLORED SPARROW.—This little bird is abundant in spring and fall, lingering here for nearly three weeks in the spring. Every thicket, copse, and weed-patch is full of them; not only the underbrush along the rivers, but young cottonwood groves and weedy fields far out on the prairie. Expect some day to find this bird breeding here, as it does, according to Professor Aughey's Report, just across the Missouri River, only a short distance away.

71. *Spizella pusilla*. FIELD SPARROW.—Not uncommon in summer; never found it nesting.

72. *Zonotrichia albicollis*. WHITE-THROATED SPARROW.—Common migrant.

73. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW.—Not so common as the preceding species.

74. *Zonotrichia querula*. HARRIS'S SPARROW.—One of our most abundant migrants. Arrives about May 1, and remains for nearly three weeks, becoming very fat. It is found in the brush along the rivers, and far out on the prairies wherever there are a few plum trees or willow bushes in the ravines. It is a very tame bird and easily secured. About October 1 it returns and does not leave until severe frosts occur, about November 1. I do not think it breeds here. I found one the middle of June, three or four years ago, and watched it closely for hours, hoping to find its nest; finally, tired of waiting, I shot the bird and found it to be an old male with atrophied testicles, which probably accounts for its remaining here when its companions went away.

75. *Chondestes grammica*. LARK FINCH.—Very common in summer; breeds early, as I have found its nest with a full complement of eggs as early as May 1. The first brood is raised from nests placed in unplowed fields; the second and third are generally built among potato vines or vegetables with heavy foliage. Have no doubt that three broods are often raised.

76. *Passerella iliaca*. FOX SPARROW.—A not very common migrant. Only single birds have been noticed.

77. *Calamospiza bicolor*. LARK BUNTING.—Common summer resident. It prefers the low bottom lands with their tall growth of grass for nesting places. Several nests may sometimes be found within an area of a quarter section. The male is conspicuous during the whole season; the female less so, being rarely seen, especially during incubation. The eggs of this species and of the Black-throated Bunting are so similar that it is necessary to be very careful in identifying the nest and birds. Of the many nests I have seen, those of the Lark Bunting were invariably placed on the ground between the grass tufts; those of the Black-throated Bunting sometimes on the ground, at other times in the middle of a tuft, the growing grass elevating it for several inches. The nest of the Lark Bunting is, as a rule, not so well upholstered with horse hair as that of the Black-throated. Snaring is often the surest means of correct identification, but this may mislead, as it once did me. Setting a steel-trap on a Duck's nest to catch the mother, I was surprised next morning to find in my trap the 'wrong bird,'—an oölogist commonly styled 'Skunk.'

78. *Spiza americana*. BLACK-THROATED BUNTING.—Common summer resident; breeds everywhere; seeks generally a more elevated place for breeding than the foregoing.

79. *Zamelodia ludoviciana*. ROSE-BREASTED GROSBEAK.—A not very common summer resident; breeds.

80. *Zamelodia melanocephala*. BLACK-HEADED GROSBEAK.—Much rarer than the foregoing; have never found it breeding here.

81. *Passerina amœna*. LAZULI FINCH.—A few stray birds seen every summer. Its nest I have never found, though it certainly breeds here.

82. *Pipilo maculatus arcticus*. NORTHERN TOWHEE.—Rare.
83. *Pipilo erythrophthalmus*. TOWHEE.—Common summer resident; breeds.
84. *Dolichonyx oryzivorus*. BOBOLINK.—Abundant; breeds. The males arrive early in May in flocks of thirty to fifty; the females a little later and singly; at least, I have never seen any in flocks.
85. *Molothrus ater*. COWBIRD.—Altogether too abundant; it outnumbered the Red-winged Blackbird in this locality. Remains longer in the fall and arrives earlier in the spring than any of the other Icteridæ, with probably the exception of *Sturnella neglecta*.
86. *Xanthocephalus icterocephalus*. YELLOW-HEADED BLACKBIRD.—Abundant in summer. The farmer's best friend, following the plow in large numbers, often in company with Franklin's Gull and the Purple Grackle, picking up larvæ, etc.
87. *Agelæus phœniceus*. RED-WINGED BLACKBIRD.—Abundant; breeds.
88. *Sturnella neglecta*. WESTERN MEADOW LARK.—Abundant. One of our earliest arrivals, and the last to depart. The eastern form, *S. magna*, has not as yet made its appearance here.
89. *Icterus spurius*. ORCHARD ORIOLE.—Common; breeds.
90. *Icterus galbula*. BALTIMORE ORIOLE.—Breeds.
91. *Icterus bullocki*. BULLOCK'S ORIOLE.—More common than the last.
92. *Scolecophagus ferrugineus*. RUSTY GRACKLE.—Rare during the migrations; in some years I have not seen it.
93. *Scolecophagus cyanocephalus*. BREWER'S BLACKBIRD.—Like the foregoing, is rare here. Breeds in limited numbers.
94. *Quiscalus purpureus æneus*. BRONZED GRACKLE.—Nearly as abundant as the Cowbird. Breeds along all our streams.
95. *Corvus corax carnivorus*. RAVEN.—Formerly more abundant than now. Occasionally observed in winter, intermingling with Crows. I doubt its breeding here.
96. *Corvus frugivorus*. CROW.—Abundant; resident; breeds.
97. *Picicorvus columbianus*. CLARKE'S NUTCRACKER.—Accidental. Two seen and one shot, October, 1883.
98. *Pica rustica hudsonica*. BLACK-BILLED MAGPIE.—This bird, which was formerly very common here in winter, frequenting trappers' camps and farmyards, has within the last four years disappeared entirely. Those seen as late in the summer as July by Professor Aughey must have been exceptional, as they never remained here longer than till the last week of March.
99. *Cyanocitta cristata*. BLUE JAY.—Now quite common the year round. It came here when the Magpies left, at first in small numbers, but now is to be seen everywhere.
100. *Otocoris alpestris*. HORNED LARK.—Resident; breeds; very abundant in some winters. This species seems to be represented here in summer by var. *leucolæma*; for our winter birds are much brighter than

those of summer, and the change of color is so sudden as to preclude its being due to the spring moult.

101. *Tyrannus carolinensis*. KINGBIRD.—Abundant summer resident; breeds.

102. *Tyrannus verticalis*. WESTERN KINGBIRD.—Rare; breeds. Does not seem to go so far away from its nesting-places as the Kingbird, and is hardly ever found any distance out on the prairies. More common a hundred miles north of here, along the Big Sioux River, than at this place.

103. *Sayornis fuscus*. PHOEBE.—Very rare; breeds.

104. *Empidonax minimus*. LEAST FLYCATCHER.—Abundant; breeds.

105. *Empidonax hammondi*. HAMMOND'S FLYCATCHER.—Not common; breeds. Only two fully identified nests with eggs found.

106. *Caprimulgus vociferus*. WHIP-POOR-WILL.—Summer resident; breeds.

107. *Phalænoptilus nuttalli*. POOR-WILL.—More abundant than the foregoing; breeds.

108. *Chordeiles popetue*. NIGHTHAWK.—Abundant during the migrations, intermingling with var. *henryi*, which latter form is the only one I have found breeding here. Its favorite nesting places seem to be large isolated rocks or boulders, which here and there crop out on the prairies.

109. *Chætura pelagica*. CHIMNEY SWIFT.—Rare; breeds.

110. *Trochilus colubris*. RUBY-THROATED HUMMINGBIRD.—Rather common; breeds.

111. *Ceryle alcyon*. KINGFISHER.—Not very common; only a few pairs seen each summer; breeds.

112. *Coccygus erythrophthalmus*. BLACK-BILLED CUCKOO.—Common; breeds.

113. *Coccygus americanus*. YELLOW-BILLED CUCKOO.—I have so far failed to find this species here, although it is said by Professor Aughey to be common a few miles south of here, in Cedar and Dixon Counties, Nebraska.

114. *Hylotomus pileatus*. PILEATED WOODPECKER.—Probably only a winter visitor in the heavy timber along the Missouri River. Have never seen it later than the last week in April.

115. *Picus villosus harrisi*. HARRIS'S WOODPECKER.—Common; breeds. Much more abundant in winter than in summer.

116. *Picus pubescens*. DOWNY WOODPECKER.—Same as the last.

117. *Centurus carolinus*. RED-BELLIED WOODPECKER.—Rare summer visitor; probably breeds.

118. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.—Common summer resident; breeds. Have on several occasions noticed its habit of storing grasshoppers in cracks and crevices for further use. Necessity often compels this bird to build its nest under roofs or in any dark hole it may find on the treeless prairie farms, a habit it has in common with the next.

119. *Colaptes auratus*. GOLDEN-SHAFTED FLICKER.—This bird's principal food seems to be ants' eggs, which it adroitly extracts with its long tongue from the holes in the ground. Var. *hybridus* is not rare, and last spring I witnessed the courting of a true *auratus* and a *hybridus*; their nest and progeny I sought for in vain.
120. *Aluco flammeus americanus*. AMERICAN BARN OWL.—Recorded from the neighboring counties of Dakota and Dixon, in Nebraska, by Professor Aughey, but has never been seen here by any one, so far as I can ascertain.
121. *Bubo virginianus*. GREAT HORNED OWL.—Common resident; breeds. Var. *subarcticus* visits us nearly every winter; var. *arcticus* only accidentally; two specimens shot.
122. *Scops asio*. SCREECH OWL.—Resident; not common.
123. *Asio americanus*. LONG-EARED OWL.—Resident; breeds; rare.
124. *Asio accipitrinus*. SHORT-EARED OWL.—Common; resident; breeds. The low bottom lands along the Missouri River seem specially suited to the habits of this species. It breeds later than other Owls, with the exception of the Burrowing Owl.
125. *Strix nebulosa*. BARRED OWL.—Common winter resident. Single birds probably stay through the summer.
126. *Nyctea scandiaca*. SNOWY OWL.—Winter resident; in snowy winters often abundant.
127. *Nyctale acadica*. SAW-WHET OWL.—Resident; very rare; breeds.
128. *Speotyto cunicularia hypogæa*. BURROWING OWL.—Common resident; breeds. The full complement of eggs is, as a rule, seven; occasionally as many as nine may be found. In the winter as many as twenty of these birds may be found nestling together in one hole. They are always at such times abundantly supplied with food. I have found at one time forty-three mice and several Shore Larks scattered along the run to their common apartment. They forage in fine weather and retreat to their dirty adobes when cold weather threatens.
129. *Circus hudsonius*. MARSH HAWK.—Common resident; breeds. Of the many eggs taken I have found only four sets where they were marked with faint blotches. Five seems to be the full complement; only twice have I found six. These Hawks are most abundant in spring, when scores follow the Duck hunters to catch and devour the wounded water birds.
130. *Nauclerus forficatus*. SWALLOW-TAILED KITE.—A few spend the summer here. Have no doubt that they breed across the Missouri River in Nebraska.
131. *Accipiter fuscus*. SHARP-SHINNED HAWK.—Common summer resident; breeds.
132. *Accipiter cooperi*. COOPER'S HAWK.—Rare; probably breeds.
133. *Astur atricapillus*. AMERICAN GOSHAWK.—Very rare in winter.
134. *Hierofalco gyrfalco islandus*. ICELAND GYRFALCON.—Accidental. Shot one during a blizzard, October 21, 1880.

135. *Hierofalco mexicanus polyagrus*. PRAIRIE FALCON.—Rare during spring migrations.

136. *Falco peregrinus navius*. DUCK HAWK.—Not very common; only seen during the migrations.

137. *Æsalon columbarius*. PIGEON HAWK.—Rare during migrations.

138. *Æsalon richardsoni*. RICHARDSON'S MERLIN.—Not so rare as the preceding; migrant.

139. *Tinnunculus sparverius*. SPARROW HAWK.—Common during migrations. A few remain all summer and breed.

140. *Buteo borealis*. RED-TAILED HAWK.—Rare resident; breeds.

141. *Buteo swainsoni*. SWAINSON'S BUZZARD.—The most abundant Hawk in this locality. Summer resident; breeds. Of the many eggs taken but four have been unmarked; full complement three, sometimes two. In its melanotic form it is not uncommon here.

142. *Archibuteo lagopus sancti-johannis*. AMERICAN ROUGH-LEGGED HAWK.—Common winter resident. Have seen it but once in summer, and then nesting.

143. *Pandion haliaëtus carolinensis*. FISH HAWK.—Rare during migrations. Found it breeding in a large elm tree overhanging the Vermilion River, May, 1883.

144. *Aquila chrysaëtus canadensis*. GOLDEN EAGLE.—Rare resident; breeds.

145. *Haliaëtus leucocephalus*. BALD EAGLE.—Rare in summer; breeds.

146. *Cathartes aura*. TURKEY BUZZARD.—Common in summer; breeds. A few also seen occasionally nearly every winter.

147. *Ectopistes migratorius*. PASSENGER PIGEON.—Rare in summer; breeds.

148. *Zenaidura carolinensis*. MOURNING DOVE.—Abundant summer resident; breeds.

149. *Meleagris gallopavo americana*. WILD TURKEY.—Not very common; resident; breeds.

150. *Pediocetes phasianellus columbianus*. SHARP-TAILED GROUSE. — Winter visitor. Occasionally seen during summer. Breeds. It is getting rarer every year.

151. *Cupidonia cupido*. PRAIRIE HEN.—Resident; abundant everywhere; breeds.

152. *Ortyx virginiana*. QUAIL.—Common resident; breeds.

153. *Squatarola helvetica*. BLACK-BELLIED PLOVER.—Spring and autumn migrant; not very common.

154. *Charadrius dominicus*. GOLDEN PLOVER.—Migrates through here in immense numbers; their stay in spring is somewhat protracted.

155. *Oxyechus vociferus*. KILLDEER.—Common summer resident; breeds. It is the first Wader to arrive.

156. *Ægialitis semipalmata*. SEMIPALMATED PLOVER.—Common migrant.

157. *Ægialitis meloda circumcincta*. BELTED PIPING PLOVER.—Mi-

grant. Have seen it on the sandbars in the Missouri River late in June, probably breeding, but have found no nests.

158. *Recurvirostra americana*. AMERICAN AVOCET.—Migrant. Know of its breeding only once in this locality. A few pairs may be seen all through summer.

159. *Steganopus wilsoni*. WILSON'S PHALAROPE.—Common summer resident; breeds. A year ago I found a colony breeding on a barren, alkali-covered piece of land in the midst of the rich surrounding bottom lands. The nests were all placed on small tussocks or elevations caused by the dropping together of burnt grass, ashes, etc., and surrounded by a few inches of water. Nests are also found here and there in the tall growth of grass on the river bottoms.

160. *Philohela minor*. AMERICAN WOODCOCK.—One of our late acquisitions, and is yet very rare. Breeds, and remains until very late.

161. *Gallinago wilsoni*. WILSON'S SNIPE.—Very abundant in spring and fall, affording excellent sport. They never leave till the marshes are frozen.

162. *Macrorhamphus griseus scolopaceus*. RED-BELLIED SNIPE.—Abundant in spring and fall.

163. *Micropalama himantopus*. STILT SANDPIPER.—Rare during migrations, and always when found it has been associated with the Red-bellied Snipe.

164. *Ereunetes pusillus*. SEMIPALMATED SANDPIPER.—Common migrant.

165. *Actodromas minutilla*. LEAST SANDPIPER.—Common migrant. Probably breeds, as I have seen it here during the whole summer.

166. *Actodromas maculata*. PECTORAL SANDPIPER.—Common migrant.

167. *Actodromas fuscicollis*. BONAPARTE'S SANDPIPER.—Rare migrant.

168. *Limosa fedoa*. MARBLED GODWIT.—A common migrant; a few have been noticed here all summer, but none found breeding.

169. *Limosa hæmastica*. HUDSONIAN GODWIT.—An abundant migrant, especially in spring.

170. *Symphemia semipalmata*. WILLET.—Rare migrant; probably breeds here occasionally.

171. *Totanus melanoleucus*. GREATER YELLOW-LEGS.—Common migrant.

172. *Totanus flavipes*. YELLOW-LEGS.—Migrant; common.

173. *Rhyacophilus solitarius*. SOLITARY SANDPIPER.—Very rare migrant.

174. *Tringoides macularius*. SPOTTED SANDPIPER.—One of our rarest Waders; only half a dozen pairs are usually noticed during the migrations.

175. *Bartramia longicauda*. FIELD PLOVER.—Common summer resident. Breeds everywhere on the higher prairies.

176. *Tryngites rufescens*. BUFF-BREASTED SANDPIPER.—Abundant in spring, when it arrives in large flocks. Only very few are seen on the return passage.

177. *Numenius longirostris*. LONG-BILLED CURLEW.—Formerly abundant; now rare summer resident; breeds.

178. *Numenius hudsonicus*. HUDSONIAN CURLEW.—Common migrant.
179. *Numenius borealis*. ESKIMO CURLEW.—In spring often very abundant.
180. *Eudocimus albus*. WHITE IBIS.—Accidental; shot one of two seen in a marsh, twelve miles north of the Missouri River in May, 1879.
181. *Ardea herodias*. GREAT BLUE HERON.—Rare in summer; breeds.
182. *Butorides virescens*. GREEN HERON.—Not common; breeds.
183. *Nyctiardea grisea nævia*. NIGHT HERON.—Rare migrant; seen only on the sandbars of the Missouri River.
184. *Botaurus lentiginosus*. AMERICAN BITTERN.—Common summer resident. Breeds in old fields, but oftener in rushes and among the tall growth of *Spartina cynosuroides* and *Calamagrostis canadensis*.
185. *Grus americana*. WHOOPING CRANE.—Rare migrant.
186. *Grus canadensis*. SANDHILL CRANE.—Common migrant. A few remain during the breeding season. I have never found its nest, but am reliably informed of its breeding here.
187. *Rallus elegans*. RED-BREASTED RAIL.—Rare summer resident. Have never found its nest.
188. *Rallus virginianus*. VIRGINIA RAIL.—Not common summer resident; breeds.
189. *Porzana carolina*. SORA RAIL.—Abundant summer resident; breeds in large numbers on our bottom lands.
190. *Fulica americana*. AMERICAN COOT.—Abundant summer resident; every marsh and slough is covered with Coots' nests.
191. *Olor buccinator*. TRUMPETER SWAN.—Migrates through here in small numbers in spring and fall.
192. *Anser albifrons gambeli*. AMERICAN WHITE-FRONTED GOOSE.—Rare migrant. Always found associating with the Snow Geese.
193. *Chen hyperboreus*. SNOW GOOSE.—Formerly abundant spring and fall migrant; now rare. These Geese are easily tamed, and I have successfully used them as decoys by depriving them of their power of flight and keeping them with a picket-rope or loose in the yard. They are very sensitive to cold, and their feet often freeze in winter unless they are kept in warm quarters.
194. *Chen cærulescens*. BLUE-WINGED GOOSE.—Rare. Occasionally one is shot out of a flock of Snow Geese.
195. *Bernicla canadensis*. CANADA GOOSE.—Common migrant. Like the Snow Geese, it is becoming less common every year. In spring it arrives a week ahead of var. *hutchinsi*, and ten or twelve days earlier than the Snow Goose. The same order of migration is also noticed sometimes in the fall. It breeds here occasionally. The young have been hatched under hens and become very tame. I have several times been shown nests in trees, claimed by settlers to be the nests of Geese, but the 'Geese' have invariably been found to be Cormorants (*Phalacrocorax dilophus*). Of the few nests of the Canada Goose found, the majority have been far away from any water out on the prairies; but one nest was built among some

large boulders two feet from the water's edge, on Lake Minnetonka, Minn. May not many if not all of the nests seen in trees by other observers have belonged to the Shag?

196. *Bernicla brenta*. BRANT.—Only four secured; probably accidental.
197. *Anas boschas*. MALLARD.—Abundant in summer; breeds.
198. *Dafila acuta*. PINTAIL.—Common migrant; a few remain to breed.
199. *Chauleasmus streperus*. GADWALL.—Common migrant.
200. *Mareca americana*. BALDPATE.—Common migrant.
201. *Nettion carolinensis*. GREEN-WINGED TEAL.—Abundant during the migrations. In the spring of 1879 I found several nests on the headwaters of the Big Sioux River. Never found it breeding here, nor have I seen the bird in summer.
202. *Querquedula discors*. BLUE-WINGED TEAL.—Common summer resident; breeds.
203. *Spatula clypeata*. SHOVELLER.—Common in summer; breeds.
204. *Aix sponsa*. WOOD DUCK.—Common summer resident. Nests most often in willow clumps surrounded by water.
205. *Fulix affinis*. LITTLE BLACKHEAD.—Abundant during the migrations.
206. *Fulix collaris*. RING-BILLED DUCK.—Accidental. Shot one in May, 1883, out of a flock of Redheads.
207. *Æthya americana*. REDHEAD.—Abundant migrant. A few remain to breed here.
208. *Æthya vallisneria*. CANVAS-BACK.—Of late years has become common during migrations.
209. *Clangula albeola*. BUTTERBALL.—An abundant migrant, arriving very early in the spring.
210. *Harelda glacialis*. LONG-TAILED DUCK.—Accidental; one male, shot in the fall of 1878.
211. *Erismatura rubida*. RUDDY DUCK.—A rare summer resident; breeds.
212. *Mergus merganser americanus*. AMERICAN SHELDRAKE.—Common migrant.
213. *Lophodytes cucullatus*. HOODED SHELDRAKE.—Summer resident; breeds.
214. *Pelecanus erythrorhynchus*. WHITE PELICAN.—Common during migrations.
215. *Phalacrocorax dilophus*. DOUBLE-CRESTED CORMORANT.—Formerly abundant; now only seen during the migrations. Its disappearance has been caused by the cutting down of the small elm and cottonwood groves along the smaller rivers, where, in common with the Crows, it had its breeding resorts. These two birds were often found nesting in the same tree.
216. *Larus argentatus smithsonianus*. HERRING GULL.—Very rare during the migrations.
217. *Larus delawarensis*. RING-BILLED GULL.—A not uncommon migrant.

218. *Larus franklini*. FRANKLIN'S GULL.—Abundant during migration, remaining here for nearly three weeks, feeding in the newly plowed fields.

219. *Sterna forsteri*. FORSTER'S TERN.—Common migrant; may yet be found breeding here.

220. *Sterna antillarum*. LEAST TERN.—Summer resident; breeds.

221. *Hydrochelidon surinamensis*. BLACK TERN.—Common summer resident; breeds.

222. *Colymbus torquatus*. LOON.—Very rare; only seen a few times in the fall.

223. *Dytes auritus*. HORNED GREBE.—Rare in spring and fall.

224. *Dytes nigricollis californicus*. EARED GREBE.—A not very common summer resident; breeds.

225. *Podilymbus podiceps*. THICK-BILLED GREBE.—Common in summer; breeds.

[ADDENDUM.—*Passerina cyanea*. INDIGO BUNTING.—Mr. Agersborg writes me that this species is a not common summer resident; breeds.—W. W. C.]

121 *Quercus*

RECENT LITERATURE.

Nests and Eggs of the Birds of Ohio.—Part XX of this magnificent work, dated April, 1885, contains plates lviii-lx. The first is a beautiful one of the nest of the Wood Thrush, the others give forty-one figures of the eggs of various species, without the nests. A notice accompanying states that three more parts, or twenty-three in all, will complete the work, which it is expected will be finished by next January, the remaining plates being nearly all done. The whole volume will then contain 69 plates, figuring about the same number of nests, the eggs of 127 species, with some 400 pages of letter-press. We have often, in tracing the course of this publication, spoken* of its great merit, and can recommend it without reserve. It forms the proper continuation of 'Audubon,' and is the only work America has produced of that character, excepting Mr. D. G. Elliot's.—E. C.

Willard on Birds of Brown and Outagamie Counties, Wisconsin.†—This paper "gives a systematic series of facts from which the generalizations of Messrs. Baird and Allen may be again applied." The 210 species enumerated are arranged in six classes, "based upon their migratory habits

* Bull. N. O. C., V, p. 39, VII, pp. 45, 112, VIII, pp. 112, 166.

† Migration and Distribution of North American Birds in Brown and Outagamie Counties. By S. W. Willard. De Pere, Wis., 1883, 8 vo., pp. 20. (From Trans. Wisconsin Acad. of Sciences, Arts, and Letters.)

while in these counties." Class I (11 species) consists of 'residents'; Class II (135 species), of true migrants; Class III (13 species), of birds that "are migratory, but whose movements through these counties seem greatly influenced by changes of temperature"; Class IV (20 species), of species which "are migratory, but whose movements.... are influenced to a great extent by immediate changes of temperature"; Class V (13 species), which arrive from the North in fall, or appear irregularly during the colder months; Class VI (18 species), of rare or presumably irregular occurrence. The birds in Class II, known to breed (100 in number), are indicated as breeding, and the manner of occurrence of those of Class VI is indicated by proper annotations. Otherwise the lists are simply nominal. A table gives the dates of arrival in spring in 1882 and 1883 of nearly one hundred species for both Brown and Outagamie Counties. There are also notes on the food of 24 species, mostly from Prof. F. H. King's well-known work on 'The Economic Relations of Wisconsin Birds,' followed by two pages of remarks on the movements and geographical limitations of certain species. The paper gives evidence of careful observation, and is a valuable contribution to our knowledge of the manner of occurrence and movements of the birds of the area in question.—J. A. A.

Lawrence on New Species of American Birds.*—The three species here described are (1) *Contopus albicollis*, (2) *Chatura yucatanica*, and (3) *Engyptila gaumeri*. All were recently collected by Mr. George F. Gaumer in Yucatan.—J. A. A.

Ridgway on New Species and Subspecies of American Birds, and on the Nomenclature of other Species.—Numerous papers on birds have been published by Mr. Ridgway in the 'Proceedings of the U. S. National Museum' (Vols. VI, VII and VIII, 1883-1885), which we have not hitherto noticed, and to which we now call attention.

The first in order of appearance is a paper based on a fine collection of Japanese birds,† made by Mr. P. L. Jouey, in which Mr. Ridgway calls attention to the close resemblance of *Anthus japonicus* to *A. ludovicianus* (auct., = *A. pennsylvanicus* Lath.). They are so much alike, he says, "that their distinctness might almost be questioned." The four winter specimens of *A. japonicus*, constituting his series, differ constantly from *A. ludovicianus* only in the paler color of the feet.‡ Other species re-

* Descriptions of supposed New Species of Birds of the Families Tyrannidæ, Cypselidæ and Columbidae. By George N. Lawrence. Ann. New York Acad. Sci., III, No. 5, Jan. 5, 1885, pp. 156-158.

† Notes on some Japanese Birds related to North American species. By Robert Ridgway, Proc. U. S. Nat. Mus., VI, pp. 368-371. (Published December 29, 1883.)

‡ It may be stated in this connection that Mr. Sharpe (Cat. Birds Brit. Mus., X, 1885, pp. 592-599) makes both *A. ludovicianus* (= *pennsylvanicus*) and *A. japonicus* subspecies of *A. spinoletta* (= *spinoletta* auct.).

ferred to are *Regulus japonicus*, *Anorthura fumigata*, *Certhia familiaris*, *Ampelis phænicopterum*, *Ægiothus linaria*, etc.

A paper on Costa Rican birds* describes as new *Empidonax viridescens*, *Pittasoma michleri zeledoni*, and *Acanthidops bairdi* (Zeledon MS.), and contains redescrptions or remarks on other little-known species, as *Carpodectes antoniae* (Zeledon, MS.), *Vireo carmioli* Bd., *Phænicothraupis carmioli* Lawr., *Lanio melanopygius* Ridg., and *Empidonax atriceps* Salv., etc. Mr. Ridgway, in Mr. Nutting's paper on Nicaraguan birds, also describes a number of new species, as duly noted below in our notice of Mr. Nutting's paper.

A species of Hummingbird given as *Selasphorus flammula* in the catalogue of birds obtained by Mr. Nutting on the Volcan de Irazú, Costa Rica, is now identified as *S. torridus* Salvin.†

Among birds collected by Mr. C. L. McKay, at Bristol Bay, Alaska, Mr. Ridgway finds a fine adult male of the European Velvet Scoter (*Melanetta fusca*),‡ and gives the characters by which it may be distinguished from its American representative, *M. velvetina*.

A new Snow Bunting (*Plectrophenax hyperboreus* Ridg.)§ is described from Alaska, based on seven specimens, collected at Nushagak and St. Michael's, by Messrs. C. L. McKay and E. W. Nelson. It is easily distinguished from *P. nivalis* by having much less black on the wings, etc.

In a paper on some birds collected by Messrs. J. E. Benedict and W. Nye, at the Islands of St. Thomas, Trinidad, and Old Providence, and at Curaçoa, Venezuela, and Sabanilla, New Grenada,|| the following are described as new. 1. *Mimus gilvus rostratus*, from Curaçoa; 2. *Dendroica rufopileata*, Curaçoa; 3. *Icterus curasoënsis*, Curaçoa; 4. "*Zenaida ruficauda*, Bonap. ? or sp. nov. *Zenaida vinaceo-rufa* Ridgw. ?," Curaçoa; 5. *Certhiola tricolor*, Island of Old Providence, Caribbean Sea, 250 miles north of Aspinwall; 6. *Vireosylva grandior*, Old Providence; 7. *Vireo approximans*, Old Providence; 8. *Elainea cinerescens*, Old Providence.

A new Field Sparrow (*Spizella wortheni*),¶ allied to *S. pusilla* and *S. atrigularis*, is described from Silver City, New Mexico.

A "resident local species or race" of Coot, differing from *Fulica americana* in the form of its bill, and in the color and form of the frontal shield, is

* On Some Costa Rican Birds, with descriptions of several supposed New Species. *Ibid.*, pp. 410-415. (Published April 11, 1884.)

† Note on *Selasphorus torridus* Salvin. *Ibid.*, Vol. VII, p. 14. (Published June 3, 1884.)

‡ *Melanetta fusca* (Linn.) in Alaska. *Ibid.*, p. 68. (Published June 11, 1884.)

§ Description of a New Snow Bunting from Alaska. *Ibid.*, pp. 68-70. (Published June 11, 1884.)

|| On a Collection of Birds made by Messrs. J. E. Benedict and W. Nye, of the United States Fish Commission Steamer "Albatross." *Ibid.*, pp. 171-180. (Published July 29, 1884.)

¶ Description of a New Species of Field Sparrow from New Mexico. *Ibid.*, p. 259. (Published Aug. 22, 1884.)

described under the name *Fulica caribæa*,* from the Islands of Guadeloupe and Saint John's, Lesser Antilles.

A new race of the Red-shouldered Hawk, from Florida,† is named *Buteo lineatus alleni*. It is smaller and paler than *B. lineatus*, with no rufous on the upper parts, except on the lesser wing-coverts.

A most welcome paper treats of the Sparrows of the coast of California‡ usually hitherto called *Passerculus anthinus* (*P. anthinus* auct., not of Bonaparte), but which Mr. Ridgway finds includes "two quite different birds." Bonaparte's *P. anthinus*, based on a specimen from Kodiak, Alaska, is referred as a pure synonym to *P. alaudinus* Bon., leaving the California birds unnamed. One of these is the very dark colored form confined to the salt marshes about San Francisco, which is here named *Passerculus sandwichensis bryanti*. The other, inhabiting similar localities from Santa Barbara southward, and still darker and more heavily spotted, is called *Passerculus beldingi*.

Mr. Ridgway having had an opportunity of comparing his *Cestrelata fisheri* with a specimen of *C. defilippiana*§ (found labelled in Jules Verreaux's handwriting in the American Museum of Natural History in New York), finds the two species "very distinct," and gives a detailed comparison of them.

He also calls attention to geographical variations in *Icterus cucullatus*,|| Yucatan specimens being more intensely colored than those from the southern and eastern parts of Mexico, while examples from Arizona, Southern and Lower California and Western Mexico are decidedly paler in coloration than those from other parts of Mexico. The name *cucullatus* having been based on specimens from the table-lands of Southwestern Mexico, Mr. Ridgway names the paler northern form *Icterus cucullatus nelsoni*, and proposes for the Yucatan bird, in case "it should be deemed desirable or necessary" to distinguish it, the name *Icterus cucullatus igneus*.

The same author describes a new species of *Contopus*¶ under the name *Contopus pileatus*, based on a specimen in the American Museum of Natural History, New York City, from an unknown locality.

He has also found that *Anser leucopareius* of Brandt** "is an exact synonym of *Anser hutchinsi* Swain. & Rich.," and that the *leucopareia* of re-

* Description of a New Species of Coot from the West Indies. *Ibid.*, p. 358. (Published Sept. 17, 1884.)

† Description of a New Race of the Red-shouldered Hawk, from Florida. *Ibid.*, pp. 514, 515. (Published Jan. 19, 1885.)

‡ On two hitherto unnamed Sparrows from the Coast of California. *Ibid.*, pp. 516-518. (Published Jan. 19, 1885.)

§ On *Cestrelata fisheri* and *C. defilippiana*. By Robert Ridgway. Proc. U. S. Nat. Mus., VIII, pp. 17, 18. Published April 20, 1885.)

|| *Icterus cucullatus*, Swainson, and its Geographical Variations. *Ibid.*, pp. 18, 19.

¶ Description of a new species of *Contopus* from Tropical America. *Ibid.*, p. 21.

** Note on the *Anser leucopareius* of Brandt. *Ibid.*, pp. 21, 22.

cent authors requires a new name. Owing to the small size of this form, he has named it "*Brenta minima*, sp. nov. Little Cackling Goose" (= *Bernicla canadensis*, d. *leucopareia*, B. B. & R., Water Birds N. Amer., I, 1884, pp. 456, 479).

A new Warbler (*Granatellus sallæi boucardi* subsp. nov.)* is described from Yucatan, and also two new birds from Costa Rica,† namely *Cyanocorax cucullatus*, sp. nov., and *Vireolanus pulchellus verticalis*, subsp. nov.

Three Honey Creepers supposed to be new, namely, *Certhiola finschi*, sp. nov., *C. sudevallii*, "sp. nov. (?)," and *C. sancti-thomæ*, sp. nov., are described, and a 'Synopsis' is given of the species of the genus *Certhiola*,‡ of which 19 are recognized, and of which are given the principle references and synonyms.

Cathartes urubitinga Pelzelin is identified with *C. burrovianus* Cassin, by comparison of typical specimens of the former with Cassin's type of *C. burrovianus*.§ Also *Onychotes gruberi* Ridg. is found to be the *Pandion solitarius* of Cassin,|| which now becomes *O. solitarius* (Cass.). Its habitat proves to be the Sandwich Islands, thus removing the species from the list of North American birds. Mr. Ridgway gives measurements of the five specimens known to him to be extant, including Cassin's type. There is still another example in the Museum of Comparative Zoology, which, having been submitted to Mr. Ridgway since the publication of his paper, he pronounces to be almost precisely like Cassin's type—an adult in the light phase of plumage.—J. A. A.

Nutting on Nicaraguan Birds. The collection forming the basis of the present paper¶ was made by Mr. Nutting at four localities, so chosen as to form a chain of stations extending across the greater part of Nicaragua, from east to west. The first of these is San Juan del Sur, on the Pacific coast, where 70 species were obtained, of which 48 are recorded "for the first time from Nicaragua." The second is Sucuyá, 22 miles northwest of San Juan del Sur. Here 88 species were collected. The third is the Island of Ometépe, in Lake Nicaragua, where 50 species were obtained. The fourth is Los Sábalos, on the Rio San Juan del Norte, about 30 miles from Lake Nicaragua. This locality furnished 78 species, including five new. Most of the species were obtained at more than one of these localities—some at all—while about half seem not to have been previously reported

* Description of a New Warbler from Yucatan. *Ibid.*, p. 23.

† Description of two New Birds from Costa Rica. *Ibid.*, pp. 23, 24.

‡ Description of three supposed new Honey Creepers from the Lesser Antilles, with a Synopsis of the Species of the Genus *Certhiola*. *Ibid.*, pp. 25-30.

§ On *Cathartes burrovianus*, Cassin, and *C. urubitinga*, Pelzelin. *Ibid.*, pp. 34-36.

|| On *Onychotes gruberi*. *Ibid.*, pp. 36-38.

¶ On a Collection of Birds from Nicaragua. By Charles C. Nutting. Edited by R. Ridgway. Proc. U. S. Nat. Mus., VI, pp. 372-410. (Published Dec. 29-April 11, 1884.)

from Nicaragua, although in many cases their presence there was to be inferred from their known general range. Brief field notes are given by the author, while critical remarks are here and there added by the editor, who is also responsible for the identifications and nomenclature adopted. Mr. Ridgway's critical remarks include descriptions of four species supposed to be new, as follows: *Oryzoborus nuttingi*, *Contopus depressirostris*, *Cymbilanius lineatus fasciatus*, and *Porzana leucogastra*, all from Los Sábalos. *Geothlypis bairdi*, also from the same locality, is described as new by Mr. Nutting.—J. A. A.

Stejneger on the Genus *Cepphus*.*—This paper consists of four parts: 'I. *Cepphus motzfeldi* (Benicken)' pp. 210-216; 'II. On the White-winged Species of the Genus *Cepphus*' (pp. 216-225); 'III. Has *Cepphus carbo* ever been obtained within the faunal limits of North America?' (pp. 225-227); 'IV. Synopsis of the Species of the Genus *Cepphus*' (pp. 227-229). The species recognized are 1. *C. mandtii* (Licht.) Newt.; 2. *C. grylle* (Linn.) Flem.; 3. *C. columba* Pall.; 4. *C. carbo* Pall.; 5. *C. motzfeldi* (Benick.) Stejn. The status of the last is not considered as satisfactorily settled, but it is thought to be a black-winged Guillemot of the North Atlantic which has been mostly overlooked or regarded as a melanotic phase of the Common Guillemot. The distinguishing characters of *C. mandtii*, as compared with *C. grylle*, are dwelt upon at length, together with their geographical distribution. The alleged occurrence of *C. carbo* in North America is discredited. A pretty full citation of the synonymy and bibliographical references of the species concludes the paper.—J. A. A.

Ridgway on New Species of Birds from Cozumel Island, Yucatan.—In January, 1885, the U. S. Fish Commission Steamer 'Albatross' touched at Cozumel Island, and the week spent there was turned to good account in behalf of ornithology, the opportunity afforded being improved by Mr. J. E. Benedict, Dr. T. H. Bean, and Mr. Thomas Lee in forming a large collection of bird skins. Among these Mr. Ridgway has recognized 15 species and subspecies new to science. He has promptly published preliminary descriptions of them,† and promises a fuller account later. At about the same time a collection of Cozumel birds, numbering 27 species, was received by Mr. Salvin, who has given an account of them in the April number of 'The Ibis' (pp. 185-194, pl. v). It has therefore happened that some of Mr. Ridgway's species were redescribed and renamed by Mr. Salvin before Mr. Ridgway's paper reached him. Mr. Ridgway's species, with the corresponding identifications of Mr. Salvin, are as follows: (1) *Harporhynchus guttatus* (= *H. melanostoma* Salv. sp. n.); (2) *Trog-*

* Remarks on the Species of the Genus *Cepphus*. By Leonhard Stejneger. Proc. U. S. Nat. Mus., VII, pp. 210-229, fig. 1-6. (Published Aug. 5, 1884.)

† Description of some New Species of Birds from Cozumel Island, Yucatan. By Robert Ridgway. Proc. Biolog. Soc. Washington, III, 1884-85. (Extras printed Feb. 26, 1885.)

lodytes beani; (3) *Dendroica petechia rufivertex*; (4) *Vireosylvia cinerea* (= *Virco magister* Salv.); (5) *Vireo bairdi*; (6) *Cyclorhis insularis*; (7) *Spindalis benedicti* (= *S. exsul* Salv. sp. n., l. c., pl. v); (8) *Euethia olivacea intermedia*; (9) *Centurus lee* (= *C. dubius* Salv.); (10) *Attila cozumelæ* (= *Atilla*, sp. ? Salv.); (11) *Lamprois thalassinus*; (12) *Chlorostilbon forficatus* (= *C. caniveti* Salv.); (13) *Empidonax gracilis*; (14) *Myiarchus platyrhynchus*; (15) *Cardinalis saturatus*.—J. A. A.

Cory's Birds of Haiti and San Domingo.—Part I of Mr. Cory's 'Birds of Haiti and San Domingo,' published in March, 1884, was noticed in 'The Auk' for July last (Vol. I, p. 285), since which time three additional parts have been issued, completing the work. * The general character of the work is indicated in the notice already cited, where it is stated that it "promises to be a very important contribution to our knowledge of the birds of a hitherto very imperfectly known region." This promise is fully realized, and we heartily congratulate the author on the prompt completion of his very creditable undertaking. Full length figures are given of 17 species, and the heads are figured of 23 other species. A plate is also given of the nest and eggs of *Mimocichla ardesiaca*, and also a map of the Island. About 110 species are treated, of which 32 are peculiar to San Domingo. In the introduction (p. 16) attention is called to the change of the generic name *Ligea*, as originally published, to *Microligea* (see Auk, I, p. 290). The author also calls attention, in the same connection, to the fact that some of the San Domingo forms of species which have a wide extralimital range differ from their representatives obtained elsewhere, as is especially seen in the genera *Speotyto*, *Corvus*, *Ortyx*, etc., but he abstains from naming them as new, preferring "to err in being rather too conservative than otherwise."—J. A. A.

Minor Ornithological Publications.—'Forest and Stream,' Vols. XXII and XXIII, Jan. 31, 1884-Jan. 15, 1885, contains, besides reprints, the following (Nos. 846-963):—

846. *The Ramble of a Naturalist.* By Judge John G. Henderson. *Forest and Stream*, Vol. XXII, Jan. 31, pp. 6, 7.—Chiefly ornithological notes of more or less interest.

847. *An Albino [Green-winged] Teal.* By W. N. B[yers]. *Ibid.*, p. 7.

848. *California Quail in Confinement.* By Nemo (of Texas). *Ibid.*, p. 7.

849. *A fine Rough-leg.* By W. A. Stearns. *Ibid.*, p. 7.—A black example of *Archibuteo lagopus sancti-johannis*, taken at Northampton, Mass.

* The Birds of Haiti and San Domingo. By Charles B. Cory. . . . Estes and Lauriat, Boston, U. S. A., 1885. 4to, pp. 1-198, pll. 23.—Pt. 1, pp. 17-56, pll. 6, March, 1884; Pt. 2, pp. 57-112, pll. 6, July, 1884; Pt. 3, pp. 113-160, pll. 6, Dec., 1884; Pt. 4, pp. 1-6, 160-198, pll. 5, March, 1885.

850. *The Least Bittern*. By T. B. A. *Ibid.*, Feb. 7, p. 25. — Its abundance in New Jersey.

851. *Picoides arcticus in New England*. By Louis A. Zerega. *Ibid.*, p. 25.

852. *Birds and Electric Lights*. By H. B. Chubb. *Ibid.*, p. 26. — List of species picked up at the foot of electric light masts in Cincinnati, O.

853. *The Egret [in New Jersey]*. By T. B. A. *Ibid.*, Feb. 14, p. 44.

854. *The Corn Crake [Crex pratensis] in New York*. By Austin F. Park. *Ibid.*, p. 44. — Taken opposite Troy, Nov. 6, 1883.

855. *Bird Migration*. By W. W. Cooke. *Ibid.*, p. 46. — A call for correspondents in the Mississippi Valley District.

856. *Screech Owls in a Chimney*. By J. L. D[avidson]. *Ibid.*, p. 46.

857. *The English Sparrow*. By Dr. J. B. Holder. *Ibid.*, Feb. 21, p. 66. — Circular of the A. O. U. Committee on the status of this bird in America.

858. *Protect the Small Birds*. By Merlin. *Ibid.*, Feb. 28, p. 83. — Against the 'mania' for possession of immense series of birds' eggs and skins."

859. *Winter Bird Notes*. *Ibid.*, p. 83. — Short notes on various species from nine contributors.

860. *Some Arizona Quails*. By Adios. *Ibid.*, March 6, p. 103.

861. [Winter] *Bird Notes*. *Ibid.*, p. 103. — Short notes from seven contributors.

862. *Evening Grosbeak in Iowa*. By Violet S. Williams. *Ibid.*, p. 104. — A small flock observed at Coralville, Feb. 8 and following days, 1884.

863. *Ortyx Virginianus in Arizona*. *Ibid.*, p. 104. — Short extract from Tucson 'Weekly Citizen.'

864. *Ortyx Virginianus not in Arizona*. By Robert Ridgway. *Ibid.*, March 13, p. 124. — Relates to the preceding (No. 863).

865. [Winter] *Bird Notes*. *Ibid.*, p. 124. — Three short notes from different contributors, one recording a Woodcock at Glenville, Conn., on Feb. 22, 1884.

866. [Winter] *Bird Notes*. *Ibid.*, March 20, p. 144. — One and a half columns, from various contributors, but chiefly from J. L. D[avidson] of Lockport, N. Y.

867. *Crows*. By Violet S. Williams. *Ibid.*, p. 144. — Novel mode of capture.

868. *Early Breeding of the Horned Lark*. By Bar Lock. *Ibid.*, p. 145. — At Virgil, N. Y. — a young bird taken March 13.

869. *Bird Notes*. *Ibid.*, March 27, p. 165. — March arrivals reported by three observers.

870. *Preservation of Song Birds*. *Ibid.*, April 3, p. 183. — Two articles — the longer one by 'Sialia,' in defence of collecting for scientific purposes.

871. *Stearns's Natural History of Labrador*. By C. Hart Merriam, M. D. *Ibid.*, p. 184. — A criticism of Mr. Stearns's 'Notes on the Natural

History of Labrador' in Proc. U. S. Nat. Mus., 1883, pp. 111-137 (See also Auk, I, p. 284.)

872. *An Interesting Relic*. By P. Bryson Wood, M. D. *Ibid.*, p. 184.—An arrow-head (figured) from the breast of a Swan.

873. *Bird Notes*. *Ibid.*, p. 185.—Short notes of early arrivals from nine contributors.

874. *Bird Notes*. *Ibid.*, April 10, p. 203.—Short notes from nine contributors.

875. *Protecting Song Birds*. By J. C. Cahoon. *Ibid.*, p. 203.—In defence of collecting for scientific purposes. Under the same heading is a protest by 'H. W. C.' against indiscriminate egg-collecting by boys, 'as a business,' but in favor of collecting for 'scientific purposes.'

876. *Shrikes Catch Mice when Thrown in the Air*. By J. L. D[avidson]. *Ibid.*, p. 203.

877. *Stearns's Natural History of Labrador*. By W. A. Stearns. *Ibid.*, April 17, pp. 223, 224.—A reply to Dr. Merriam's criticisms (see above, No. 871).

878. *Southern Limit of Quail and Grouse*. By Forked Deer. *Ibid.*, p. 224.

879. *A Quail New to the United States Fauna*. By Geo. Bird Grinnell. *Ibid.*, April 24, p. 243.—*Ortyx graysoni*, "common in Southern Arizona." (See above, Nos. 860, 863, 864, which relate to this species.)

880. *Southern limit of Quail and Grouse*. By Robert Ridgway. *Ibid.*, p. 243.—Relates to No. 878, in which reference is made to the supposed occurrence of *Ortyx virginiana* and *Bonasa umbella* in Costa Rica.

881. *Congratulations and Speculations*. By B. Horsford. *Ibid.*, pp. 244, 245.—In part ornithological.

882. *Application of Trinomial Nomenclature to Zoology*. By Dr. Elliott Coues. *Ibid.*, May 1, p. 264.—A paper on this subject "Spoken before the National Academy of Sciences at the stated session held in Washington, April 15-18, 1884, and stenographically reported. . . ."

883. *Bird Arrivals at Cleveland, Ohio*. By Sri [= S. R. Ingersoll]. *Ibid.*, p. 265.—Observations extending from Feb. 19 to April 23, 1881.

884. *Upland Plover in Minnesota*. By W. L. Tiffany. *Ibid.*, May 8, pp. 284-285.—Detailed and interesting account of its habits.

885. *The Arrow-Head in the Swan*. By E. W. Nelson. *Ibid.*, p. 285.—The arrow-head (see above, No. 872) identified with those in use by Indians on the Upper Yukon.

886. *The Catbird*. (*Mimus Carolinensis*.) By Wilmot. *Ibid.*, May 15, p. 302.—On its habits.

887. Crossbills in New Jersey. By C. B. Riker. *Ibid.*, p. 302.

888. *Decrease of Song Birds*. *Ibid.*, p. 303.—Two notes, relating respectively to Boston and Philadelphia.

889. *Corn Crake* (*Crex pratensis*). By J. Matthew Jones. *Ibid.*, p. 303.—Relates to a specimen taken in 1859 in Newfoundland, and another in the Bermudas in 1847.

890. *Chimney Swallows*. By A. B. F. *Ibid.*, p. 303.

- X 891. *The Couesian Period*. By R. W. Shufeldt, Capt. Med. Corps U. S. A., etc. *Ibid.*, May 22, p. 323. (Continued in following issues.)—A reprint of the 'Historical Review' in Dr. Coues's 'Key,' Second Edition, prefaced by a letter by Dr. Shufeldt, proposing an additional 'Period,' to be called the 'Couesian Period,' in recognition of Dr. Coues's work on North American ornithology.
892. *The Brown Thrush*. (*Harporhynchus Rufus*.) By Wilmot. *Ibid.*, pp. 323, 324.—On its habits.
893. *Bird Migration*. By J. L. Davidson. *Ibid.*, p. 324.—Record for Lockport, N. Y., from April 6 to 30, 1884.
894. *The Baltimore Oriole*. (*Icterus Galbula*.) By Wilmot. *Ibid.*, May 29, pp. 342, 343.—On its habits.
895. *The Willet* [*Symphemia semipalmata*] *Breeding in Delaware Bay*. By Chas. E. Bellows, Ph.G. *Ibid.*, June 5, p. 364.
- X 896. *The Couesian Period?* By Amicus Socrates, amicus Plato, magis amica veritas. *Ibid.*, June 19, p. 384.—The recognition of a 'Couesian Period' deemed premature.
897. *Bird Notes*. *Ibid.*, p. 384.—Three articles, giving reports of arrivals for May, 1884; viz., (1) Onondaga, N. Y., by G. Albert Knapp; (2) Spencerport, N. Y., by L. F. Spencer; (3) Lockport, N. Y., by J. L. D[avidson].
898. *A Bit of a Sermon*. By Onondaga. *Ibid.*, June 19, p. 402.—Breeding of Woodcock in New York in July, etc.
899. *North American Birds*. Editorial. *Ibid.*, p. 403.—Review of the first volume of the 'Water Birds of North America' by Baird, Brewer, and Ridgway.
900. *Seasons and Birds of the Prairie*. By H. S. Williams, M. D. *Ibid.*, pp. 403, 404.—An interesting account of the characteristic birds of the prairies.
- X 901. *The Couesian Period*. By R. W. Shufeldt. *Ibid.*, p. 404.—Brief reply to 'Amicus Socrates,' etc. (See above, No. 896.)
- X 902. "The Couesian Period?" By Amicus Socrates, amicus Plato, magis amica veritas. *Ibid.*, June 26, p. 423.—Rejoinder to the last-cited paper (No. 901).
903. *Birds and the Electric Light*. *Ibid.*, p. 424.—Extract from the Winona (Minn.) 'Republican' of May 23, 1884, giving account of the destruction of large numbers of birds, killed by striking against electric lights during two nights, May 20 and 21, at Winona, Minn.
904. *Utility of the Crow*. By C. E. B. *Ibid.*, p. 424.
905. *Owl and Steel Trap*. By A. H. G. *Ibid.*, p. 424.—*Bubo virginianus* with a steel trap attached to its claws.
906. *Painted Finch on Long Island*. By A. L. Townsend. *Ibid.*, p. 424.
907. *The Use of Field Glasses* [*in Ornithological Studies*]. By Bittersweet. *Ibid.*, July 3, p. 443.
908. *Under Water*. By W. D. Z. *Ibid.*, p. 444.—*Tringoides macularius* swimming under water.

909. *Rose-breasted Grosbeaks Abundant* [at Taunton, Mass.]. By J. C. Cahoon. *Ibid.*, p. 444.
910. *Orioles in Massachusetts*. By C. I. Goodale. *Ibid.*, p. 444.—Not decreasing in numbers, etc.
911. *Birds of the Gulf of St. Lawrence*. Editorial. *Ibid.*, July 10, p. 465.—Review of Mr. William Brewster's 'Notes on Birds Observed during a Summer Cruise in the Gulf of St. Lawrence.' (See also Auk, I, p. 379.)
912. *Destruction of Seafowl*. Editorial. *Ibid.*, July 10, p. 461.—Extracts relating to the subject from Mr. Brewster's paper (see last title), and comment thereon.
913. *Notes on [Massachusetts] Shore Birds*. By Raymond Lee Newcomb. *Ibid.*, July 17, pp. 483, 484.—Valuable notes on the Grallæ.
914. *How Young Birds Are fed*. By O. Widmann. *Ibid.*, p. 484.—Minute observations on the feeding of young Purple Martins (*Progne subis*) by their parents.
915. *The Arizona Quail*. By Adios. *Ibid.*, p. 484.—An offer to send living Arizona Quail to parties in the East desiring to introduce them there.
916. *The Oak Woods Sparrow* (*Pucæa æstivalis illinoensis*). By G. H. Ragsdale. *Ibid.*, p. 484.—As observed near Gainesville, Texas.
917. *A Visit to a Heronry*. By Curtis. *Ibid.*, July 24, p. 506.—Locality, Massachusetts; species, '*Nyctiardea gardeni*.'
918. *Domesticating Quail*. By J. B. B. *Ibid.*, p. 506.—Experiments with *Ortyx virginiana*.
919. *Strange Antics of an Owl*. By C. Hart Merriam, M. D. *Ibid.*, p. 507.
920. *The Humming Bird* (*Trochilus Colubris*). By Wilmot. *Ibid.*, Vol. XXIII, July 31, p. 3.—Its nesting habits.
921. *The Sacrifice of Song Birds [for Millinery Purposes]*. Editorial. *Ibid.*, Aug. 7, p. 21.
922. *The Destruction of Small Birds*. Editorial. *Ibid.*, p. 24.—Statistics relating to the appalling magnitude of the millinery trade in bird-skins.
923. *Fruit-eating Birds*. By Byrne. *Ibid.*, p. 24.—Arraignment of the Robin and Catbird.
924. *Grouse of the Pacific Slope*. By Mesatchie. *Ibid.*, p. 24.—Species of, and their distribution.
925. *Rare Birds on Long Island*. By Geo. Bird Grinnell. *Ibid.*, p. 24.—*Porzana jamaicensis*, *Rhynchops nigra*, *Herodias alba egretta*, and *Garzetta candidissima*.
926. *Our Birds in their Haunts*. Editorial. *Ibid.*, Aug. 14, pp. 44, 45.—Review of the work.
927. *The Catbird*. By Wilmot. *Ibid.*, p. 45.—Its defence, against 'Byrne.' (See above, No. 923)
928. *The Greene Smith Ornithological Collection*. Editorial. *Ibid.*, p. 45.

930. *The Crow*. By R. S. Tarr. *Ibid.*, Aug. 21, p. 63. — As observed at Gloucester, Mass.
931. *California [Mountain] Quail in Nebraska*. *Ibid.*, p. 63. — Extract from the Sacramento 'Capital.' Notice of their successful introduction.
932. *Fruit-eating Birds*. By Picket. *Ibid.*, Aug. 28, p. 83. — Statistical table showing contents of stomachs of various species.
933. "*Our Birds in their Haunts*." By J. H. Langille. *Ibid.*, pp. 83, 84. — The author's reply to his critic. (See above, No. 926.)
934. *The Robin as a Game Bird*. By R. T. *Ibid.*, Sept. 4, p. 105.
935. *Fruit-eating Birds*. *Ibid.*, p. 105. — Two articles — (1) by 'Wilmot' against 'Picket,' and (2) by Wakeman Holberton in defence of the Catbird.
936. *Small Bird Destruction*. By Special. *Ibid.*, Sept. 11, p. 123. — 40,000 Tern skins, taken in Massachusetts, sent during the past year to Liverpool for millinery purposes! Comment also on the destruction of Woodpeckers and other small birds, which fall victims to the 'gunning craze.'
937. *A Humming Bird Combat*. By Chas. C. Truesdell, Jr. *Ibid.*, Sept. 18, p. 143.
938. *The Birds Again*. By Picket. *Ibid.*, pp. 143, 144. — Includes an article by T. H. Hoskins, M. D., from the New York 'Examiner,' against fruit-eating birds, and also covers a note by 'Mergus' in reply to 'Wilmot.'
939. *Cardinal Redbird on Long Island*. By Robert B. Lawrence. *Ibid.*, p. 144. — A male, taken Sept. 7, 1884.
940. *Robins and Strawberries*. By Nessmuk. *Ibid.*, Sept. 25, p. 164. — Verdict heavily against the Robin.
941. *Domesticating Quail*. By J. B. B. *Ibid.*, p. 164. — Successful attempts detailed.
942. *The Catbird*. By Wilmot. *Ibid.*, p. 165. — In its defence. Incidentally *Passer domesticus* is arraigned as 'simply immense' on grapes, exceeding in its destruction of this fruit 'anything that wears feathers.'
943. *Where the [Purple] Martins Roost*. By Q. Widmann. *Ibid.*, Oct. 2, p. 183. — Many thousands, late in August, roost in the willows below St. Louis, Mo. The article forms a very interesting chapter in this bird's history, hitherto unwritten.
944. *Quail [Breeding] in Confinement*. *Ibid.*, p. 184. — Extract from Hagerstown, Md., 'News,' detailing further successful attempts at rearing Quail in captivity.
945. *American Ornithologists' Union. Report of Proceedings [of Second Congress]*. *Ibid.*, Oct 5 and 16, pp. 204, 205, 223, 224.
946. *Note on the Ruffed Grouse*. By Manly Hardy. *Ibid.*, p. 208. — A specimen with twenty tail-feathers.
947. "*Key to North American Birds*." Editorial. *Ibid.*, Oct. 23, p. 288. — Review of the work.
948. *Arizona Quail in Confinement*. By J. B. B. *Ibid.*, Oct. 30, p.

264. — Two pairs of *Lophortyx gambeli* received by the writer at Toledo, Ohio.

929. *Nesting of the Yellow-bellied Woodpecker in Northern New York*. By S. I. Ingersoll. *Ibid.*, p. 45.

949. *Swainson's Warbler Rediscovered (Helmintherus Swainsoni)*. By Elliott Coues. *Ibid.*, Nov. 6. pp. 285, 286. — Account of its habits, based on notes supplied by Arthur T. Wayne, as observed near Charleston, S. C.

950. *Domesticating Wildfowl*. By Fred Mather. *Ibid.*, Nov. 6 and Dec. 4, pp. 286, 366. — Wood Duck, Teal, Widgeon, Pintail, etc.

951. *Black Brant [in Washington Territory]*. By Alki. *Ibid.*, Nov. 13, p. 304.

952. *Bird [Nuthatch] in a Mouse Trap*. By A. H. G. *Ibid.*, Nov. 27, p. 344.

953. *Notes on the Capture of Sea Birds*. By Capt. J. W. Collins. *Ibid.*, Dec. 4 and 11, pp. 364-366, 383-385. — Reprinted from Ann. Rep. Comm. Fish and Fisheries, 1882. (For notice of the original paper see Auk, I, p. 380.)

954. *Acclimation of Foreign Birds [in the United States]*. By J. S. Prout. *Ibid.*, p. 364. — In view of the unsuccessful attempts with the European Quail, Skylark, etc., it is suggested that such birds should be turned out in the South (Florida, Louisiana, Mexico) instead of the North.

955. *Bird Notes*. *Ibid.*, Dec. 11, p. 385. Brief notes from three contributors, the most important item being the record of a Barn Owl captured at Logan, O.

956. *The Migratory Quail*. By G. M. S. *Ibid.*, p. 385. — Birds turned out near Springfield, Mass., 'two years ago,' have reared young and are still there, and there 'to stay.'

957. *Sharp-Tailed and Sea-side Finches*. By Everett Smith. *Ibid.*, Dec. 18, p. 405. — The Sharp-tailed stated to be found as far north as the Tantremar marshes, near the head of the Bay of Fundy. The Seaside is added to the fauna of Maine on the basis of its recent capture at Shark Island.

958. *Quail in Confinement*. By Tenny & Woodward. *Ibid.*, Dec. 25, p. 426. — A brood of five and another of seventeen "hatched last season are still living and in fine condition."

959. *Bird Migration in the Mississippi Valley. Winter Birds of Southern Illinois*. By W. W. Oooke [= Cooke]. *Ibid.*, Jan. 1, 8, 1885, pp. 444, 445, 463, 464. — A formal list of the species, with brief commentary.

960. *Perhaps Nest and Eggs of Regulus Satrapa*. By W. T. Emmet. *Ibid.*, Jan. 1, 1885, p. 445. — Found near Lennoxville, Can., in spring of 1879, and doubtless correctly assigned.

961. *North American Birds. Water Birds, Vol. II*. Editorial. *Ibid.*, Jan. 8, p. 463. — Notice of the work.

- 1 962. The Birds of Michigan. By Dr. Morris Gibbs. *Ibid.*, Jan. 15, pp. 483, 484. (Continued in following Nos.)
 963. A Mule Bird. By W. E. D. Scott. *Ibid.*, Jan. 15, p. 484.—A cross between *Colaptes mexicanus* and *C. chrysoides*. (Originally published in the 'Arizona Daily Star,' Tucson, Dec. 16, 1884.)—J. A. A.

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GENERAL NOTES.

Abnormal Coloration in a Caged Robin.—In an account of an abnormally colored Robin given in 'The Auk' for January, 1884, p. 90, mention was made of the softness of the bones. Such of these as were not necessary to the proper make-up of the skin were submitted to a careful chemical analysis under the direction of Prof. W. O. Atwater, of Wesleyan University, who found them to contain only about 25 per cent of mineral matter, or about one-third the amount usually found in the bones of normal, healthy birds.—W. B. BARROWS, *Middletown, Conn.*

Another Black Robin.—Some time ago I heard of a second 'Black Robin,' and tried to find out the facts with regard to it, but failed to get anything definite until to-day, when, by mere chance, I met the owner of the abnormal bird and obtained from him the following facts about it. The bird was taken from the nest here in Middletown while in the ordinary first plumage, and for "two or three years" was like any other caged Robin. The owner, Mr. H. S. Leonard, seemed principally struck with the tremendous appetite of the bird, which he assured me ate "as much as a goose" every day. Gradually the plumage became somewhat variegated with black and white, the black predominating above, though Mr. Leonard thinks the bird became ultimately almost white.

There was no return to the normal plumage after the abnormal dress was once assumed; but the bird, which proved to be a female, always seemed in perfect health and laid several sets of eggs while in captivity, of course hatching none. She, however, adopted any young bird, of whatever species, put into her cage, and in every case reared the young birds successfully. She died when about five years old, through the carelessness of the person left to feed her. Unfortunately her skin was not preserved. The food was varied as much as possible, consisting largely of insects, worms, fruit, etc., in summer, with a large proportion of meat, bread, etc., in winter.—W. B. BARROWS, *Middletown, Conn.*

Return of Robins to the same Nesting-places.—Mr. Charles S. Mason, of Farmington, Conn., tells me that for the last three years a Robin (*Merula migratoria*), with the back and wings mottled with white, has bred on or near Miss Porter's lawn in that village, and that a young bird was seen last fall partially white. At the time of writing (May 20, 1885) the birds had not appeared this season.

Mr. Charles A. Hewins, of West Roxbury, Mass., writes that "some years ago a Robin built her nest five consecutive years in a woodbine that was trained up and over a piazza. We knew her by a white mark on one side of her head."—JNO. H. SAGE, *Portland, Conn.*

Abundance of *Parus atricapillus* near Washington.—This bird has been very abundant here during March and April, nineteen specimens having been taken, while many others were seen. Owing probably to the severe winter they were driven south, returning about the middle of March. The first specimens were taken on March 15, and others were taken every week until April 19, when six were shot and many others seen. The weather during April was fine and warm, and the birds were singing and appeared quite at home. But few *P. carolinensis* were seen until the last week in April, showing that they too had been driven much further south.—WILLIAM PALMER, *Smithsonian Institution, Washington, D. C.*

Occurrence of *Helminthophila leucobronchialis* in Virginia.—I have to announce the capture of this Warbler by myself on May 15, near Fort Meyer, Arlington, Alexandria Co., Va. It was moving quickly in the underbrush in a low wet wood, and at the moment when shot was hanging back downwards, in the manner of *H. chrysoptera*. I heard no note, as I shot it as soon as possible, thinking it was a Golden-winged Warbler, which is very rare here. This is, I believe, the fourteenth specimen that has been taken, but the first south of New York. The specimen, which is a male, agrees closely with the description of the type as given in No. I, Vol. I, of the 'Bulletin of the Nuttall Ornithological Club,' except that it has more olive mixed with the yellow on the crown. The specimen is now in the National Museum Collection, No. 104,684, and is the first one that it has received.—WILLIAM PALMER, *Smithsonian Institution, Washington, D. C.*

Another Example of *Helminthophila leucobronchialis* from Connecticut.—Mr. Harry W. Flint has kindly presented me with a specimen of this Warbler which he killed at New Haven, Conn., May 19, 1885. It is a male, and shows a slight suffusion of yellow under each eye and on the chin, as well as a light bar of the same color across the breast; rest of underparts white. The wing bars are very much restricted, and the white is tinged with yellow, and there is a spot of the same color on the back.—JNO. H. SAGE, *Portland, Conn.*

Nesting of the Worm-eating Warbler (*Helminthotherus vermicivorus*) in Southern Connecticut.—One of our most trustworthy collectors, Mr. Harry W. Flint, formerly of Deep River, but now of New Haven, Conn., took a nest of this rare species at New Haven, June 7, 1885, containing five eggs. He writes that "the nest was on the ground, and composed almost wholly of leaves, and lined with red rootlets; it was not roofed over, but the leaves of the *Kalmia*, near the roots of which it was placed, almost hid it from sight. Indeed, it was so clearly hidden that when I took my eyes off it to follow the bird, it required fully a minute to find the nest again, although I had not moved." It was on a hill-side, in a very secluded and dark spot in deep woods.

The nesting of this species at New Haven was noticed by Mr. George Woolsey in 'Bulletin N. O. C.,' Vol. V, p. 116.—JNO. H. SAGE, *Portland, Conn.*

Probable Breeding of the Wheatear (*Saxicola ananthe*) on the North Shore of the Gulf of St. Lawrence.—I have before me three specimens of *Saxicola ananthe*, all of which were shot at Godbout, on the north shore of the St. Lawrence, near the point where the river widens into the Gulf, by Mr. Napoleon A. Comeau. Two others were seen, making five individuals noted within thirteen months. Following is the complete record: May 18, 1884, one shot. Sept. 19, 1884, male shot. May 24, 1885, one seen. June 9, 1885, female shot and mate seen.

Mr. Comeau writes me that in the female shot June 9, "the eggs were pretty well developed." He adds, "I think there can be no question now about the bird breeding on this coast."

It is safe to infer that the five individuals seen were but a small portion of those actually present along the coast; hence the species can no longer be regarded as "an accidental straggler from Europe." Moreover, the finding of two birds (presumably a pair) at Godbout so late as the 9th of June, taken in connection with the statement that the female contained ova which "were pretty well developed," point strongly to the conclusion that they would have nested at no very great distance. And this conclusion is strengthened by the fact that the Wheatear is known to breed in June at Disco, Greenland,* fifteen hundred miles north of Godbout.—C. HART MERRIAM, *Locust Grove, N. Y.*

Nest and Eggs of the Philadelphia Vireo. The nest and eggs of the Philadelphia Vireo (*Vireo philadelphicus*) have hitherto been unknown, so far as I can find. But on the 9th of June, 1884, while camped near

* Fabricius says of it: "Nidificat mense Junio inter lapides majores, gramine arido cum muscis et plumis raris intermixtis," etc. (*Fauna Grœnlandica*, 1780, p. 123); and nearly a century later (July 19, 1875), Sir George S. Nares found "several parties of young Wheatears . . . flying about the rocks near the shore" at Prœuen, nearly two hundred miles north of Disco (*Narrative of a Voyage to the Polar Sea*, Vol. I, 1878, p. 29).

Duck Mountain, I found a nest of this species. It was hung from a forked twig about eight feet from the ground, in a willow which was the reverse of dense, as it grew in the shade of a poplar grove. The nest was pensile, as usual with the genus, formed of fine grass and birch bark. The eggs were four in number, and presented no obvious difference from those of the Red-eyed Vireo, but unfortunately they were destroyed by an accident before they were measured.

Before shooting her I watched the bird for a week. She exhibited a combination of shyness and fearlessness; but this is rather characteristic of the Vireos. She would continue on the nest while I watched her from just below, and when scared off would quietly hop on to a twig and then disappear in the foliage without uttering any complaint. Lying on the ground just below the nest I found another nest of precisely similar construction. This I hung on a low twig, intending to take it to camp on my return; but coming back it was again found on the ground; and though I hung it several times in the willow, taking care to fasten it as securely as the occupied nest, it was always pulled down. There is no doubt that the Vireo was the agent, but the motive for the act I can scarcely understand.

The bird on being shot answered perfectly to Coues's description, except that on the breast it was of a much brighter yellow than I was led to expect.—ERNEST E. T. SETON, *Toronto, Canada*.

A White-winged Junco in Maryland.—On February 1 of this year, I shot near Ilchester, Howard Co., Md., a male *Junco hyemalis* with very distinct white wing-bars; quite as well-marked as in typical *J. aikeni*. Although Juncos with traces of white on the wing-coverts are not very uncommon, this particular specimen is believed to be unique as regards the large amount of white. Several 'experts' who have examined it concur in pronouncing it singular in this respect. Otherwise it agrees with ordinary *hyemalis*. It is now in the U. S. National Museum (No. 102,219), where all 'good things' in the bird line should be.—C. W. BECKHAM, *Washington, D. C.*

Junco annectens—A Correction.—Owing to an unfortunate delay in the transmission of proof sheets, mention of the occurrence of *Junco annectens* was omitted from my article, "Winter Notes from New Mexico," in the present number of 'The Auk.' I took three individuals on December 6 and 22. They were all in company with *J. caniceps* and *J. oregonus*, and doubtless others passed unnoticed among the many flocks of Juncos constantly met with.—CHARLES F. BATCHELDER, *Cambridge, Mass.*

Capture of *Ammodramus caudacutus nelsoni* in the Lower Hudson Valley, New York.—For a short time in the autumn, included in the time between the 25th of September and the 10th of October, Sharp-tailed Finches are comparatively common over certain portions of the low

meadows which border the Croton River near its mouth. Some dozen or more specimens have been secured in the last four or five years, and without exception all of them were of the smaller inland variety. They are easily distinguished from the typical maritime species, by their smaller size, shorter bill, and darker plumage. They are evidently migrants, as none of them have been observed in this vicinity in summer.

—A. K. FISHER, M. D., *Sing Sing, N. Y.*

Swamp Sparrows and Yellow-rumps—A Question of Evidence.—It seems well to caution collectors against the inference that a bird winters in a given locality because it happens to be found there at some time during the winter. The writers of two interesting notes, printed on page 216 of the present volume of 'The Auk,' make this hasty generalization. It is hardly possible that Swamp Sparrows passed the winter in Massachusetts, in a season so rigorous as was that of 1884-85 after the middle of January; Mr. Chadbourne certainly does not produce sufficient evidence for the conclusion that they did so. It is even less likely that Yellow-rumped Warblers tarried in Maine throughout the same season; no person who kept a record of the weather during that remarkable winter will, I think, draw such an inference from Mr. Goodale's note. —NATHAN CLIFFORD BROWN, *Portland, Me.*

The Song of *Cardinalis virginianus*.—Mr. Bicknell's note on the song of the Cardinal Grosbeak reminds me that it sings at a much *earlier* date in Kansas. It is a permanent resident, abundant at all seasons. Its song may be heard from February 1 to August. Should the days be bright and warm, its song begins even in January. If, during February, the weather should become extremely cold, its song ceases for a time. Like the Mockingbird (*Mimus polyglottus*), it sings at night. I have heard its song in the 'small hours' of the night, during February, March, and April. —D. E. LANTZ, *Manhattan, Kans.*

The Black-throated Bunting, Yellow-breasted Chat, and Connecticut Warbler in Ontario.—On June 1, 1884, Mr. Wm. L. Bailey, collecting with Mr. A. P. Saunders and the writer at Point Pelee, found several Black-throated Buntings in a meadow about two miles from the end of the Point. Knowing of no previous record in Canada, we were all much interested; and subsequently, in extending our search, we found one or more pairs in almost every field. All our efforts to discover a nest seemed doomed to fail; and even when we spent much time and care in watching the birds, and marking down the place where the supposed nest was, we could never succeed. The males spent much time in singing their monotonous ditty from tree-tops and fence-posts, and even during the heat of the day our presence was sufficient to start them going. This appeared to act as a partial alarm to the female, and if we approached, the male would fly over her and give an alarm-note, precisely after the manner of the Bobolink under similar circumstances. XX

XX On June 6, in passing through one of the 'Bunting fields' on the return trip, the writer flushed a female from a fresh set of five eggs of the usual size and color. The nest, which is now before me, was placed *on*, not *in* the ground, among the stems of a tuft of weeds, and is composed of leaves externally, and lined with fine, dry grass. Its measurements are as follows: outside diameter, 100 mm.; inside diameter, 63 mm.; height outside, 63 mm.; depth inside, 45 mm. These birds were observed in every suitable locality on the Point, and on the return drive they were heard constantly till we had gone three miles into the mainland, when no more were noticed.

On June 6, when about a mile farther up the Point, the writer heard a strange note, and at every search for the author found an Orchard Oriole, and, not being very familiar with that bird, attributed the note to it. Shortly afterward Mr. Bailey arrived at the same place, and called out, "Did you hear the Chat?" Instantly every one was on the *qui vive*, and after some time a glimpse of the bird was obtained, but not the bird itself. A hunt for it on the two following days was finally rewarded by the capture of a fine female Yellow-breasted Chat, with ovaries as large as a pea. Further search resulted in nothing more than this, the first capture in Canada; and though we looked carefully, we did not even find the beginning of a nest. Reference has already been made in 'The Auk' to the remains of a specimen of this species that Mr. Thos. McIlwraith picked up at Hamilton, Ont. No doubt they are regular summer visitors at Pelee Island, Point Pelee, and some places along the shore of Lake Erie.

On September 15, 1883, there flew into a store in this city a Connecticut Warbler, which was, as far as I then knew, the first Canadian specimen. In December of the same year, a consultation with Mr. McIlwraith disclosed the fact that he had some specimens of the same species, which had never been satisfactorily separated from the Mourning Warbler. These have been in his possession for years. Again in May, 1884, attracted by a new note, after spending some time in a swampy thicket, I succeeded in capturing another of this species near London; and since knowing their note have found them tolerably common, but quite shy here as swamp birds, and quite common at Point Pelee, for a few days in June, as ground feeders in dry places, where, on the above trip, several were procured.—W. E. SAUNDERS, *London, Ont.*

A Belated Bird.—The Chewink (*Pipilo erythrophthalmus*) returns to this region in limited numbers every spring. It is not usual to see very many of them, a pair at most together, and oftener one alone. They depart as regularly every autumn, and we see no more of them until some pleasant day in spring, when the weather has become quite warm. But very curiously to me, one of these birds did not depart with its associates in the fall, and is still here (Dec. 21, 1884). During the past ten days the mercury has ranged from 10° to 31° below zero, and yet my Chewink stays about the barnyard, as bright and lively as though we were in the midst of warm, bud-swelling spring days! On the coldest morning, I found him

in a little close shed, from which he escaped through a broken window-pane. He alighted on a limb of a tree only three or four feet from the window, and I had a good look at him. He seemed to be shivering with cold, but still active. He is quite tame, and very freely goes about among the cattle and hogs searching for food. If we could only get hold of him we would give him better quarters within doors, for it seems scarcely possible that he can long survive such temperature. He evidently 'got left' when the autumn migration took place, and his 'inherited experience' was too limited to prompt him to attempt the journey alone.

P.S.—Jan. 2, 1885. The Chewink is still here. This afternoon I caught him in an out-building. We looked him over and let him go. He is in good condition—sound and plump—despite our -40° temperature! He is solitary and alone, no birds of any species being about.—CHARLES ALDRICH, *Webster City, Iowa.*

Cowbird Wintering in Western New York.—A few weeks ago my attention was called to a strange bird which was feeding on the street with *Passer domesticus*. On getting a good view I saw it was *Molothrus ater*. The egg from which it was hatched was probably laid and hatched in a Sparrow's nest, and the bird, reared by the Sparrows, failed to mingle with the rest of its species. I have seen it a number of times since, and a young man told me last week that he saw it nearly every day. I am quite anxious to know if it will survive through the winter with its foster parents. Being itself a vagabond, it is a fit companion for *Passer domesticus*.—J. L. DAMON, *Lockport, N. Y.*

Nest and Eggs of *Calypte costæ*.—In a paper read before the January meeting of the Ridgway Ornithological Club, descriptive of the Californian Trochilidæ, reference was made to the finding of a nest and eggs of *Calypte costæ*. Considering the rarity of the nests and eggs of Costa's Hummer, perhaps a description of them may not fail of interest to the readers of 'The Auk.'

Three nests of this bird were found by the writer at Arrow-head Hot Springs, San Bernardino County, Cal., May 15, 1883; but unfortunately but one set of eggs was secured. One set was accidentally shaken from the nest; the other nest was out of reach.

Finding no account of the breeding habits of the bird in question in such books as are at my disposal, I wrote to Mr. H. W. Henshaw for information, who regretted that he could not enlighten me, not having met with the bird in any of his wanderings; but he was of the opinion that nothing had been recorded respecting the nest and eggs of this species. He, however, kindly forwarded my letter to his friend Mr. L. Belding, of Stockton, Cal., with request to send what information he could bearing on the subject. Mr. Belding writes concerning *Calypte costæ* as follows:—

"I have met it at various places, — Guaymas, on the east side of the Gulf of California, at La Paz, Cape St. Lucas, Cerros Islands, and other localities on the west side of the Gulf, but never recorded much concerning

it, as its manners were quite similar to those of other Hummingbirds of my acquaintance." He also says, "You will find two nests described by Mr. Ridgway (Proc. U. S. Nat. Mus., Vol. V, p. 542). These nests, like all I have seen, were in shrubs or small trees, the highest only about six feet from the ground, in a palo-verde, or gum tree. Each of the nests described held two eggs; but I lost or broke one from each nest."

So it would seem from this that Mr. Belding met with mishaps as well as myself.

Arrow-head Hot Springs are distant about five miles from the town of San Bernardino, lying a mile or so up the side of the San Bernardino Mountains. In the neighborhood of the Springs are several small cañons, running back into the mountains, the sides of which are clothed with such trees as alder, sycamore, and mountain laurel. Among these the Black-chinned Hummer (*Trochilus alexandri*), as well as the Costa, were breeding quite abundantly, and building their nests in close proximity to, or overhanging, a beautiful mountain stream; which wound its way down between and over the mighty boulders. The locality was extremely picturesque. These Hummers constituted about all of the bird life of the cañon.

Speaking of one set of eggs of *C. costæ* being accidentally shaken out of the nest recalls to mind an incident which I also find in my field notebook, viz:—

"We had been noting how persistent the females were in occupying their nests, even after they had been frightened away from them several times. In one case I held my hand about a foot from one while she was on the nest, without any fear being evinced on her part, until an attempt was made to catch her; this manœuver was repeated a number of times, when she would always return to the nest and sit there as unconcernedly as possible. Finally my companion struck at her with his hat and hit her, at the same time striking the bough that the nest was on, precipitating her and the eggs into the stream below." A most tragic end, indeed, to such a peaceful existence!

Incubation was very far advanced in this set, as was proven by one of the eggs dropping upon a flat stone near the water's edge, on which a well-formed chick was deposited, which would have hatched in a day or two.

The nest containing the two eggs saved, which is now before me, measures 1.60 inches in diameter externally; 1 inch in internal diameter; and .60 of an inch deep on the inside. In make-up it is altogether different from any Hummer's nest that I ever saw, being destitute of all cottony and downy substances usually employed by Hummingbirds in constructing their dwellings.

In this case the main body of the nest has the appearance of a mass of spider webs, small bits of dried leaves, and leaf-bud scales, interwoven in a compact mass. By examination, I also find that the birds have utilized the remains of an old nest in forming the foundation for this one, which was built partly in the fork of one of the lower branches of an alder tree, and situated between five and six feet from the ground. A few feathers line its interior.

The eggs were in a somewhat advanced stage of incubation, and some difficulty was experienced in blowing them. They are a trifle smaller than the eggs of *T. alexandri*, and considerably smaller than those of *T. colubris*. Their color strikes me as being not so pure a white as the eggs of the latter. As the male bird was not observed in the vicinity of the nest, I may add that the female was shot and afterwards identified by Mr. Ridgway, which fact should be sufficient guarantee of the correct identification of the specimens.—B. T. GAULT, *Chicago, Ill.*

Curious Food for the Kingfisher (*Ceryle alcyon*).—A few years ago I examined the contents of the stomachs of two young Kingfishers (*Ceryle alcyon*), and found, to my surprise, instead of the usual remains of fish, fragments of various beetles (Coleoptera) belonging to the families Carabidæ, Dytiscidæ, and Scarabæidæ, the Carabidæ and Scarabæidæ being exclusively inhabitants of the land. Among the Scarabæidæ an almost perfect specimen of *Aphodius fumetarius* was recognized.

Mr. A. P. Chadbourne, of Cambridge, Mass., who shot both the birds in question, has furnished me with the following information. He says: "The Kingfishers were shot at Kennebunksport, Me., on July 14, 1881. They were both young birds, and were shot in the nest with a collecting pistol. I observed one of the adults on the ground in a ploughed field near the river side, but did not shoot it. The young were fully feathered and able to fly."

I am ignorant as to whether the food of the young of this species has been studied by any one else or not, but is it not possible that they may be fed regularly by their parents upon insects?—R. HAYWARD, *Cambridge, Mass.*

Occurrence of the Sharp-shinned Hawk in New Hampshire in Winter.—Mr. Wm. Little, of Manchester, N. H., writes me that a specimen of *Accipiter fuscus* was killed there Jan. 24, 1885, by Geo. H. Walker, and mounted by Hiram P. Young. This is, I believe, the first recorded instance of its capture so far north in winter.—JNO. H. SAGE, *Portland, Conn.*

[It may be of interest to add that a female Sharp-shinned Hawk was taken in Cambridge, Mass., Dec. 15, 1884, by Mr. Joseph L. Goodale, who has the specimen in his collection.—J. A. ALLEN.]

Early and Accidental Occurrence of *Catharista atrata* and *Tantalus loculator* in Kansas.—Dr. Louis Watson, of Ellis, Kansas, wrote me April 14, 1885, of the capture on the 27th of March, of a Black Vulture, a species not before noticed there. Also that "A Wood Ibis barely escaped capture March 26. It had been about the Creek (Big Creek) on my premises for several days; but after receiving a charge of No. 6 shot at short range rose over the bank with a drooping leg, and has not been seen since. It is almost incredible that it should be here, or anywhere else so far north, so early."—N. S. GOSS, *Topeka, Kansas.*

The Glossy Ibis and Avocet at San Diego, Cal.—On January 1, while on my way to the Santa Margarita Valley duck-shooting, I noticed a small

flock of Avocets from the cars. They were amongst other Waders in a slough adjoining the ocean. Again, whilst lying behind cover in the valley awaiting Ducks, I noted a solitary individual, but could not get a shot. The same day a companion with me killed two from a flock of about twenty Ibises. A few days previous a market hunter in the town brought me one, and later two individuals of the same bird. He told me that with the exception of one killed in the same vicinity (Mission Valley) last year, they were the first he had met with or heard of in several years' hunting. The Avocet he had never seen, although I know of an authentic capture of seven on the Bay shores a few years since. Both birds are of sufficient rarity here to warrant notice of their unusual presence this year, and the size of the flock of Ibises seen in the Santa Margarita is especially unusual, as previous records have only been of, at most, six or seven individuals.—GODFREY HOLTERHOFF, JR., *San Diego, Cal.*

The Eggs of the Knot (*Tringa canutus*) found at last!—No fact is more generally recognized among ornithologists than the different degrees of distinction, so to speak, attaching to the discovery of the eggs of different birds. The nests of some species have been found early, or by accident; others before their absence from collections has excited much notice; while others still have long been the object of special and diligent search, and the failure to find them has been commented upon by many distinguished writers. Of this latter category no more marked example can be found than the Knot (*Tringa canutus* L.). Seebohm, in his entertaining 'Siberia in Europe,' tells us that when he and Harvie-Brown started for the Petchora, the birds "to the discovery of whose eggs special interest seemed to attach, were the Grey Plover, the Little Stint, the Sanderling, the Curlew Sandpiper, the Knot, and Bewick's Swan."* And in a foot note he adds: "The Knot (*Tringa canutus*, Linn.) was the only one of these six species of birds which we did not meet with in the valley of the Petchora. It probably breeds on the shores of the Polar basin in both hemispheres, but its eggs are absolutely unknown."

Major Henry W. Feilden, naturalist to the Nares Arctic Expedition of 1875-76, says: "I was not so fortunate as to obtain the eggs of the Knot during our stay in the Polar regions, though it breeds in some numbers along the shores of Smith Sound and the north coast of Grinnell Land. . . . During the month of July my companions and I often endeavored to discover the nest of this bird; but none of us were successful. However, on July 30, 1876, the day before we broke out of our winter-quarters, where we had been frozen in eleven months, three of our seamen, walking by the border of a small lake, not far from the ship, came upon an old bird accompanied by three nestlings, which they brought to me."† These young I have seen in the British Museum at South Kensington,

* Siberia in Europe. By Henry Seebohm, London, 1880, p. 2.

† Narrative of a voyage to the Polar Sea. By Capt. Sir G. S. Nares, London, Vol. II, 1878, pp. 211-212.

where, in company with a pair of the old birds, they constitute one of the most attractive of the many 'natural groups' which adorn Mr. Sharpe's department.

Lieut. A. W. Greely, U. S. A., Commander of the late Expedition to Lady Franklin Sound, succeeded in obtaining the long-sought-for egg of this species; and has had the extreme kindness to ask me to publish the first account of it.

Lieut. Greely writes me: "The specimen of bird and egg were obtained in the vicinity of Fort Conger, latitude $81^{\circ} 44'$ N. The egg was 1.10 inch [28 mm.] in the longer axis, and 1 inch [25.40 mm.] in the shorter. Color, light pea green, closely spotted with brown in small specks about the size of a pin-head."—C. HART MERRIAM, *Locust Grove, N. T.*

Southern Range of *Rissa tridactyla kotzbuei*.—In the last number of 'The Auk' (Vol. II, p. 222), Mr. N. S. Goss mentions the capture of *Rissa tridactyla kotzbuei* in Washington Territory, and thinks it to be its most southern record. We have, however, received it from Mr. Charles A. Allen, taken at Nicasio, Cal.—SOUTHWICK & JENCKS, *Providence, R. I.*

The Relationship of *Podiceps occidentalis* and *P. clarkii*.—About four years ago Mr. Henshaw* discussed the relationship of *Podiceps occidentalis* and *P. clarkii*, as shown by a series of eleven skins collected by me in San Francisco Bay, Cal. Owing to lack of specimens from different localities, and from the breeding grounds of these forms, I am unable to give a definite opinion respecting the conclusion arrived at by Mr. Henshaw, but will leave the now generally accepted belief of the specific identity of the two forms until they can be studied from fresh specimens on the breeding grounds. From my own investigations I decidedly incline to the opinion that the differences which, prior to Mr. Henshaw's investigations, were supposed to characterize different species or varieties, are in reality only sexual.

Of the twenty skins of this bird which I have prepared fifteen are females, and can easily be distinguished from the males, the female differing from the male in size and in the general appearance of the bill. In fact, I find no difficulty in distinguishing the sexes in the fresh bird before skinning. The color and curvature of the bill as seen in skins are of little aid, as the bill so warps in drying that a bill slightly recurved in life may become very much recurved in the dried skin. The color of the bill, also, soon changes after death, especially if the bird be suspended by the legs for a time before skinning. Through the courtesy of the authorities of the National Museum I was kindly afforded an opportunity to examine twenty-five specimens of these Grebes in the collection of the Museum, and with one exception I correctly determined the sex at sight by the

* On *Podiceps occidentalis* and *P. clarkii*. By H. W. Henshaw. Bull. Nutt. Orn. Club, VI, pp. 214-216.

appearance of the bill alone. I have found that birds of 24.50 inches in length or less are females, and those 25.50 inches or more in length are males. No. 199, a female, which in Mr. Henshaw's article is given as 26.25 inches in length, is an apparent exception. The longest bill I have measured was 3.20 (chord of culmen), and the shortest 2.13, the average being 2.50. The lores vary in tint from white to the color of the head, in both sexes; and I have seen January specimens with white lores, and June birds with dark lores, and the reverse.—WALTER E. BRYANT, *Oakland, Cal.*

The Western Grebe in Manitoba.—In Coues's 'Key' I find the Western Grebe (*Podiceps occidentalis*) described as a bird of the Pacific Slope. It will then be not a little surprising to readers of 'The Auk' when announcement is made that this bird is common in Northern Manitoba. After I had made the discovery for myself I was a little disappointed to read the following in Professor Macoun's 'Report': "This bird [the Western Grebe] seems to be altogether unknown in the interior, and yet it has bred in thousands at Water Hen River. From time immemorial up to the present it has only been known from the Pacific Coast."

I examined specimens taken at Long Lake, Winnipeg, where it is common, and others from Shoal Lake, further north, where it is abundant. Thus it will be seen that its numbers increase as we go north towards the Saskatchewan Valley, for Water Hen River is much farther north still.

The following completes my list of Manitoba Grebes:—

Podiceps griseigena holboëlli. RED-NECKED GREBE.—Scarce.

Podiceps cornutus. HORNED GREBE.—Very common.

Podilymbus podiceps. DAB-CHICK.—common.—ERNEST E. T. SETON, *Toronto, Canada.*

Capture of Escaped Cage-birds.—Mr. Forrest Ball, of San Bernardino, Cal., writes that on Jan. 12, 1884, he took at that place "a Cockatoo Paroquet (*Nymphicus novæ-hollandiæ*). It was resting on a tall cottonwood tree, basking in the sunshine, and was apparently perfectly at home in its strange surroundings. As it is an Australian species, it was no doubt an escaped cage-bird, but from its perfect condition it had, I surmise, been out of captivity a considerable time. The specimen is now in my collection."

Mr. Joseph L. Goodale also writes me that on Nov. 2, 1884, he shot, in the Belmont (Mass.) orchards, a Java Sparrow, "which was lively and in good condition." The capture of exotic, even tropical, species of birds, more or less common as cage-birds, in various parts of the United States, has been from time to time recorded, while other instances that have never been published have come to my knowledge. Generally the birds thus taken, even when captured in the colder parts of the year, are reported as found in good condition, and as showing rarely any trace of previous confinement. The fact that their natural habitat is generally very remote—not unfrequently south of the equator—and that they are species often met with in confinement, seems sufficient evidence that they are in reality 'escapes,' and therefore not to be counted as stragglers to our fauna. Yet it is of interest to know that such species are so well

able to maintain an apparently comfortable existence, unaided by man, under, to them, such strange environment. — J. A. ALLEN, *American Museum of Natural History, Central Park, New York City.*

Introduced Game Birds in Oregon and Idaho.—Several years since our consul to Japan sent over quite a number of Japanese Pheasants—exact species to me unknown. The birds were liberated below Portland, Oregon, on Sanvie's Island, and are known to have bred. While on duty at Vancouver Barracks I met a gentleman who informed me that he had seen, not long before (the summer of 1883), an old bird with several young near where the Pheasants were first liberated. In the autumn of 1883 a female was killed just below Vancouver. I saw this one, and the skin is now in the possession of Mr. John Jaggyat. The bird killed was one of a pair seen flying across the Columbia from the Oregon side to Washington Territory. The river at this point is nearly a mile wide, and the point of crossing was at least fifteen miles above the place of *planting*. By this it appears that the 'plant' has been established. The bird is a strong flier and bids fair to be a valuable acquisition. Oregon and Washington Territory have passed laws protecting these birds.

The Bob White (*Ortyx virginiana*) has been successfully introduced to the Boise Valley, Idaho. Three years since I found a covey on the west side of the Snake River, fifty miles below Boise City, where they were first liberated. I never saw coveys so large or numerous as I found them about Boise. Cover and food, as well as climate, are all favorable.—TIMOTHY E. WILCOX, *Assist. Surg., U. S. A.*

Fourth Addendum to List of Birds Ascertained to Occur within ten miles from Point de Monts, Province of Quebec, Canada; based chiefly upon the notes of Napoleon A. Comeau.—(For original List and previous Addenda see Bull. Nutt. Ornith. Club, Vol. VII, No. 4, Oct. 1882, pp. 233-242; Vol. VIII, No. 4, Oct. 1883, p. 244; and The Auk, Vol. I, No. 3, July 1884, p. 295; Vol. II, No. 1, Jan. 1885, p. 113.)

Mr. Comeau has recently sent me skins of the five following species:

174. *Dendroica castanea*.—♂ shot at Godbout the last week in May, 1885.

175. *Dendroica palmarum hypochrysea*.—♂ shot at Godbout, May 21, 1885.

176. *Cotile riparia*.—Shot at Godbout, June 8, 1885.

177. *Poecetes gramineus*.—Shot at Godbout, April 24, 1885. Others were seen the same day and the next, and on May 10.

178. *Falco islandus*.*—A very handsome ♀ shot at Point de Monts, Jan. 7, 1885. Another was seen at Godbout, March 23, 1885.

179. *Bartamia longicauda*.—♂ shot at Godbout, May 7, 1885.

180. *Lobipes hyperboreus*.—Shot at Godbout, May 27, 1885.—C. HART MERRIAM, *Locust Grove, New York.*

* For authority for the name *Falco islandus* Brünn., see Stejneger in 'The Auk,' Vol. II, No. 2, April 1885, pp. 184-187.

CORRESPONDENCE.

[Correspondents are requested to write briefly and to the point. No attention will be paid to anonymous communications.]

The Popular Names of Birds.

TO THE EDITORS OF THE AUK:—

Sirs: The 'powers that be,' I understand, are preparing a 'Check List,' and revising the scientific and *popular* names of our birds.

There is no doubt that scientific names are entirely in the hands of scientists, but it seems to be overlooked that popular names are just as completely in the hands of the people. Scientists may advise, but not dictate on this point. A short analysis of the principle of common names may place the matter in a new light.

A bird's name, to be popular, must be distinctive, and in accordance with the genius of our language. Examples of such are Thrush, Rail, Heron, Hawk, Crane, Night-Jar, and many others. These are truly popular names, evolved originally out of a description, handed down and condensed and changed until they have assumed their present terse, abrupt, and, to a foreign ear, uncouth forms, but, nevertheless, forms in accordance with the pervading spirit of the Saxon tongue; or, in other words, they are *really* popular.

On the other hand, look at the so-called popular, but really translated, scientific or spurious English names given to our birds, taking as examples the following: Baird's Bunting, Leconte's 'Sparrow, Wilson's Green Black-capped Flycatching Warbler, Bartram's Sandpiper, Sprague's Lark, Wilson's Thrush, Black Ptilogonys, Semipalmated Tattler, Fasciated Tit, Florida Gallinule, etc.

Surely, the gentlemen whose names are applied to these birds have not so slight a hold on fame as to require such aids as these to attain it, if indeed aids they be, which I question; for such nomenclature *cannot* stand the test of time.

If you show to an 'out-wester' the two birds mentioned above as Baird's Bunting and Leconte's Sparrow, and tell him that these are their names, he will probably correct you, and say one is a 'Scrub Sparrow,' the other a 'Yellow Sparrow.' Convince him that he is wrong, and in a month he will have forgotten all but the names he formerly gave them; they are so thoroughly appropriate and natural that they cannot be forgotten. The next name in the list above given is clumsy enough to strangle itself with its own tail. A lad on the Plains once brought me a *Neocorys spraguei*, and asked its name. I replied that it was Sprague's Lark. Soon afterward he came again; he could not remember that name; so I told him it was a 'Skylark,' and he never forgot that. On the Big Plain that seed was sown, and not all the scientists in America can make, or ever could have made, the settlers there call that bird anything but 'Skylark.' And I consider that lad precisely represented the English-speaking race; he rejected the false name, and readily remembered the

true one, and was aided by that which was apt and natural. No better illustration could be given of the fact, that phraseology may be the life or death of a cause, according as it is happy or unfortunate.

A similar instance is the case of 'Bartram's Sandpiper.' Ever since Wilson's time this name has been continually thrust into the face of the public, only to be as continually rejected; 'Upland Plover' it continues to be in the east, and 'Quail' on the Assiniboine, in spite of Bartram and Wilson, and will continue so until some name, answering all conditions, is brought forward; for here, as elsewhere, the law of the survival of the fittest rigidly prevails. As an example of the fit ousting the false, note how, in spite of scientists, 'Veery' is supplanting 'Wilson's Thrush' throughout the length and breadth of the land.

The spurious English names scarcely need comment, they so evidently contain in themselves the elements of their own destruction. Imagine a western farmer being told that a certain songster was a 'Ptilogonys.' In spite of the books, the other three examples cannot hold ground against 'Willet,' 'Ground Wren,' and 'Waterhen,' respectively.

The purpose of a Check List that includes English names is, I take it, not to attempt the impossible feat of dictating to our woodmen what names they shall give their feathered friends, but rather to preserve and publish such names as are evolved in the natural way,—names which are the outcome of circumstances. Only in case of egregious error is a common name to be superseded; and in doing this it must be remembered that no name can be popular unless true to the principles of the English tongue. It must be short, distinctive, and, if possible, descriptive. Of this class are Veery, Junco, and Vireo. These are the only successful artificial names that I can at present recollect. Among natural English names for American birds are Bobolink, Chewink, Kingbird, and many others. Such as these not only more than hold their own, but are as great aids to the spread of knowledge as the Ptilogonys kind are hindrances; while such as Wilson's Thrush can only be accepted as provisional, until the better knowledge of the bird and its surroundings shall result in the evolution of an English name founded on true principles.

ERNEST E. T. SETON,
of Manitoba.

*Glen Cottage, Howard Street,
Toronto, March 21, 1815.*

NOTES AND NEWS.

THE determination of the place and date of the next meeting of the American Ornithologists' Union having been referred by the Union to the Council, the Council has decided upon New York as the place, and the third Tuesday in November (Nov. 17) as the date, of the meeting for 1885.

At a meeting of the Council of the A. O. U., held in Washington, April 21, the Committee on the Revision of the Nomenclature and Classification of North American Birds presented its final report, which was accepted, and ordered printed with as little delay as possible, under the supervision of the Committee. The Report, as previously stated in the pages of 'The Auk' (I, pp. 371, 372), consists of a code of nomenclatural rules, adopted by the Committee for its guidance in its work, and a new Check List of North American Birds. It may now be announced that the first part of the report, the 'Code,' is already in type, and the printing of the Check List will proceed as rapidly as practicable, and the publication of the whole Report may be expected during the coming autumn.

As announced in the April number of 'The Auk' (II, p. 223), an appropriation of \$5000 was granted by the last Congress, through the Department of Agriculture, in aid of the work of the Committee on Migration. This fund, which becomes available on July 1, is to be expended through the officers of the Department of Agriculture, in behalf of 'Economic Ornithology,' which will not only embrace the migration and distribution of our birds, but also their food habits in relation to agriculture. In recognition of the action taken by the A. O. U. in securing the appropriation, the Department of Agriculture invited the Council of the A. O. U. to select a superintendent to carry on the contemplated work, already so earnestly begun under the auspices of the Union. The Council, at its meeting held April 21, in Washington, unanimously appointed Dr. C. Hart Merriam, Chairman of the Committee on Migration, as its representative. Dr. Merriam will enter upon the duties of the position July 1, having his official headquarters in the Department of Agriculture at Washington. As his first assistant he has been fortunate in securing the services of Dr. A. K. Fisher of Sing Sing, Superintendent of the 'Atlantic District,' in the work of the Migration Committee.

Mr. William Brewster returned recently from the mountain region of Western North Carolina, where he spent portions of May and June in ornithological exploration. Although failing to discover any 'lost species' (such as Bachman's Warbler and the like), he was enabled to obtain a great deal of information about the summer bird-life of this interesting and hitherto ornithologically unexplored region. A detailed report of Mr. Brewster's interesting discoveries may be expected in a future number of 'The Auk.'

Mr. H. B. Bailey's well-known oölogical collection—one of the largest and finest private collections in the United States—has recently been purchased by the American Museum of Natural History, in New York City, to which it has already been transferred. This collection includes the nests and eggs of many foreign birds, particularly European,

as well as those of nearly all of the known North American species, many of which are represented by extensive series. Mr. Bailey is still engaged upon its rearrangement, by whom it is to be put in order and duly labelled.

MR. George B. Sennett, having recently become a resident of New York City, has placed his large ornithological collection on deposit in the American Museum of Natural History in Central Park. As is well known, Mr. Sennett's collection is especially rich in Texas birds and their nests and eggs, which it is his intention to enlarge and render complete by further explorations in that State. It already contains large series, both of the skins and nests and eggs of many of the rarer species, and thus forms a valuable addition to the available material for research in ornithology contained in the American Museum.

MR. William Brewster has been appointed 'Assistant in Ornithology' at the Museum of Comparative Zoölogy in Cambridge, taking the place formerly held there by Mr. Allen. The Museum is to be congratuated on having secured so capable and trustworthy a curator as Mr. Brewster is well known to be.

At a meeting of the Ridgway Ornithological Club of Chicago, held May 14, the following officers were elected for the ensuing year: President, B. T. Gault; Vice-President and Treasurer, G. F. Morcom; Secretary, H. K. Coale; Curator, H. L. Fulton; Librarian, J. G. Parker. The papers read at recent meetings of the Club include 'Notes on Arizona Birds,' by Mr. Coale, and 'The Woodpeckers of Michigan, with remarks on their Anatomy,' by Dr. Gibbs.

MR. Cory, having completed his work on the 'Birds of Haiti and San Domingo,' is now gathering material for a general work on the Birds of the West Indies, "including the Bahama Islands, and the Greater and Lesser Antilles, excepting the Islands of Tobago and Trinidad." As preliminary thereto he has already published a list of the species, giving their West Indian range.

DR. L. Stejneger's Report on his ornithological work in Kamtschatka is rapidly passing through the press at the Government Printing Office, and its publication may be expected at an early day. It forms 'Bulletin 29' of the U. S. National Museum, and is entitled 'Results of Ornithological Explorations in Kamtschatka and in the Commander Islands.' It will make a volume of 300-350 pages, and be illustrated with 8 plates (7 of them colored), and numerous cuts in the text. About 150 species will be treated in detail, besides which a list will be given of all the species known to have been taken in Kamtschatka.

Mr. John Murdoch's Report on his ornithological work at Point Barrow is already in type, and its early publication may be expected. It forms a part of the general Report of the Point Barrow Expedition, and is illustrated with two colored plates of Ross's Gull (*Rodostethia rosea*).

WE are informed that Mr. Thomas McIlwraith, of Hamilton, Ontario, is preparing a work on the birds of that Province, to be published early in the fall. It will give not only a list of the species thus far recorded from Ontario, with notes on their distribution and habits, but also include descriptions of the species, thus forming a convenient hand-book of the birds of Ontario.

THE present year continues prolific in new serials devoted to natural history, most of which include notes and papers relating to ornithology. Many of these serials are to be classed as juvenile and amateur, having very little scientific importance, yet, as they claim to have a wide circulation, doubtless do much good in awakening and extending interest in natural history subjects. The crudities and ignorance displayed by some of them, however, scarcely make them very safe guides to the young student, or give the publications a very creditable standing. In several cases they are to be looked upon rather as the advertising adjuncts of dealers in natural history material than as *bona fide* natural history journals. Among the purely ornithological claimants upon our attention is 'Our Birds,' an 8-page monthly, published at Holyoke, Mass., by Frank H. Metcalf, and edited by Richard S. Brooks. The first number is dated May, 1885. 'The Western Oölogist,' published by Frank M. Sherin, at Milwaukee, Wisc., is another ornithological aspirant to fame, a 4-page 'specimen number' of which bears date, May, 1885. It is to be issued monthly, and enlarged to eight pages per number. It is to be hoped that in future a little more care will be bestowed upon the spelling of scientific names, and that a higher grade of ornithological knowledge will be displayed in these publications than is evinced by one of the papers under notice, which describes a Pelican as "a wading bird standing six feet high in his bare feet." 'The Museum,' a 16-page monthly, of which the first number also bears date May, 1885, is an illustrated journal, published at Philadelphia, "in the interests of Young Naturalists and Collectors of all Classes." Its list of contributors includes well-known writers in various departments of natural history; it is edited with care, neatly printed, and altogether presents an attractive appearance. Among the new serials should also be mentioned the 'Bulletin of the Brookville Society of Natural History,' published by the Society, the first number of which has recently appeared, containing a paper in part ornithological by Mr. A. W. Butler.